

REPORT

ON THE

SANITARY CONDITION

OF THE

BOROUGH OF CAMBRIDGE,

From January 1st to December 31st, 1907,

BY

DUNCAN FORBES, M.D., B.Sc., D.P.H.,

MEDICAL OFFICER OF HEALTH.

INDEX.

	PAGE.
Adulteration of Foods	56
Births and Birth-rate	6
Canal Boats...	40
Cancer	19
Common Lodging Houses	36
Comparative Statistics	20
Dairies, Cowsheds, and Milkshops	39
Deaths, and Death-rate, Factor of Correction	6
Diarrhoea	26
Diphtheria	20
Disinfections	53
Epidemic Mortality	9
Erysipelas	26
Estimate of Population	5
Excrement Disposal	32
Factories and Workshops	36
Filthy Dwellings	32
Food Inspection	35
House Accommodation	30
Infantile Mortality	10
Infectious Diseases Hospital, Report on	59
Influenza	10, 28
Isolations	52
Measles	27
Medical Inspection of School Children	40
Method of dealing with Infectious Diseases	52
Notification of Births Act	10
Nuisances	52
Other Notifiable Diseases	26
Overcrowding	32
Physical Features and General Character of District	30
Prophylactic Measures	53
Puerperal Fever	24
Record of Disinfection	55
Removal of Refuse	32
Scarlet Fever	21
School Closure, etc.	53
School Nurse	40
Sewerage and Drainage	32
Slaughterhouses	35
Tabular Indications	55
Tubercular Phthisis	19, 54
Typhoid Fever	24
Vital Statistics	5
Water Supply	32
Weekly Record of Disease Incidence	29
Whooping Cough	28

APPENDICES—Statistical Tables

Sketch Map of Borough, showing distribution of cases of Infectious Disease.

Report on the Medical Inspection of School Children during 1907.

I have the honour to communicate to the Cambridge Borough Council (Urban Sanitary Authority) the thirty-third Annual Report, containing the tables of Vital Statistics with notes thereon, and abstracts of the work of the Public Health Department during the year 1907.

Owing to my appointment to Brighton and the shortness of the interval between my resignation and departure for my new post this report has unavoidably been hurriedly prepared, and I hope that due allowance will be made for this fact.

I have to thank Mr. Wallis for the invaluable assistance he has rendered me in the preparation of this report as well as in many other matters.

DUNCAN FORBES.

STATISTICAL SUMMARY FOR 1907.

Area of Borough in Acres ....	....	....	3210
Population at Census 1901....	....	....	38379
Estimated Population to middle of 1907			39,924
Average number of persons per Acre		....	12·4
Number of persons per house (1901)		....	4·4
Birth-rate per 1000 living ....	....	....	20·4
Death-rate „ „ „ ....	....	....	12·8
Death-rate from Epidemic Diseases		....	0·40
Deaths under 1 year of Age to 1000			
Registered Births ....	....	....	88
Death-rate from Phthisis ....	....	....	1·02
Death-rate from other Tubercular Diseases			0·40
Death-rate from Respiratory Diseases			2·00
Death-rate from Cancer ....	....	....	1·17

REPORT.

I beg leave to communicate to the Cambridge Urban District Council my Annual Report for the year 1907, on “the conditions affecting health in the District and the means for improving those conditions.”

I discuss prescribed subjects in a definite order following the suggestions of the Local Government Board contained in the Memorandum as to Annual Reports of Medical Officers of Health, issued November, 1907.

Vital Statistics.

The population for the year 1907 has been estimated on the same principles as those enunciated in the report of Dr. Anningson for the year 1902. I estimate the population of the whole Town to be 39,924, and the population of the two sub-districts

Vital
Statistics
Estimate of
Population.

into which the town is now divided for registration purposes is as follows :—

St. Andrew-the-Less	....	30,300
St. Andrew-the-Great	....	9,624

Taking the estimated population to the middle of the year as the basis of calculation, the vital statistics are as follows :—

Births and
Birth-rate.

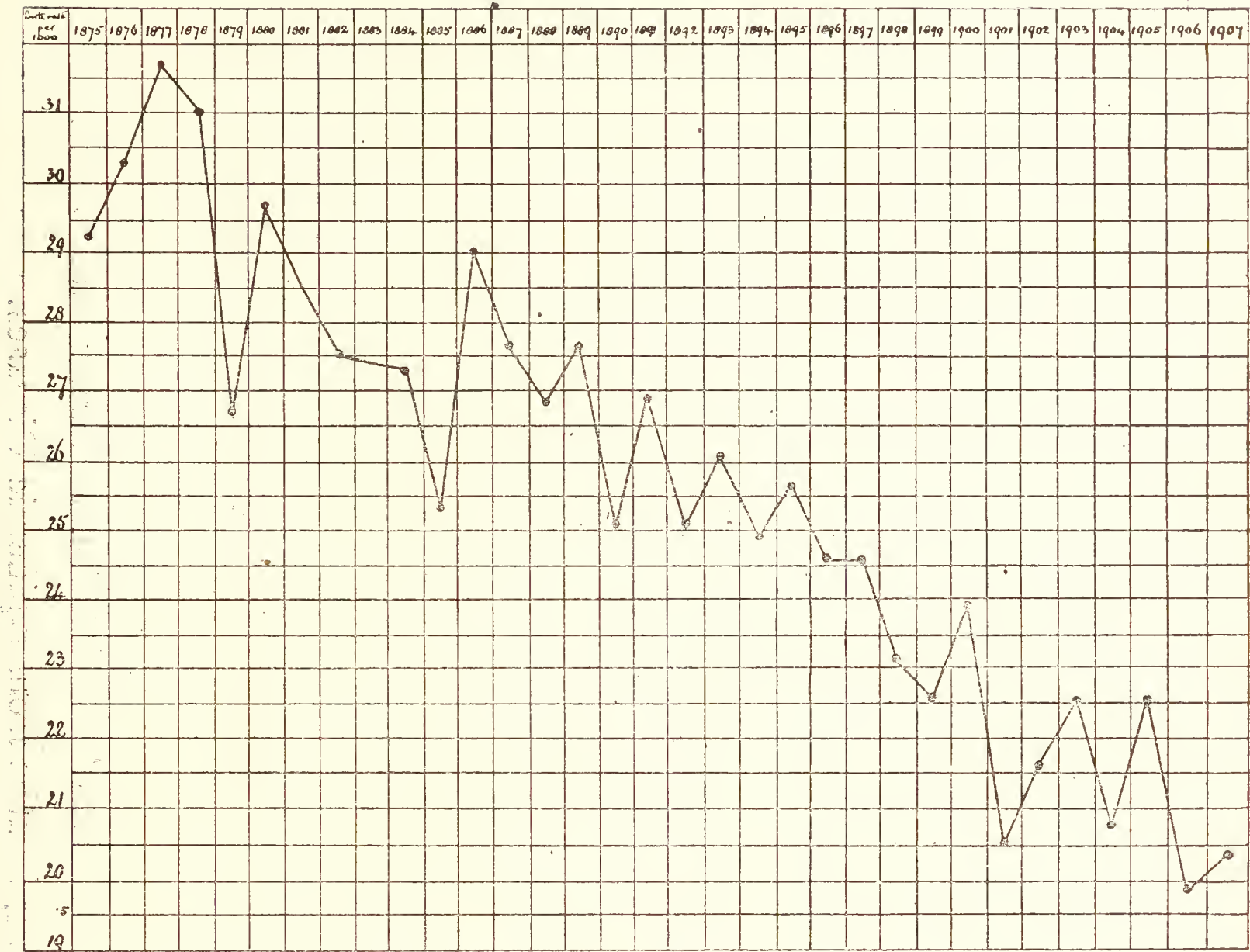
The total number of births registered is 816 (413 males and 403 females), equal to an annual crude birth-rate on the estimated population of 20·4 per thousand, which is 0·5 higher than the rate recorded for the year 1906. The mean rate for the previous ten years is 21·5. The birth-rate for England and Wales for the year 1907 is given in the summary of the Registrar General contained in the appendix to his report for the last quarter of the year as 26·3 per 1,000 of the population, which is 0·8 per 1,000 below the rate in 1906, and lower than the rate in any other year on record.

Deaths and
Death-rate.

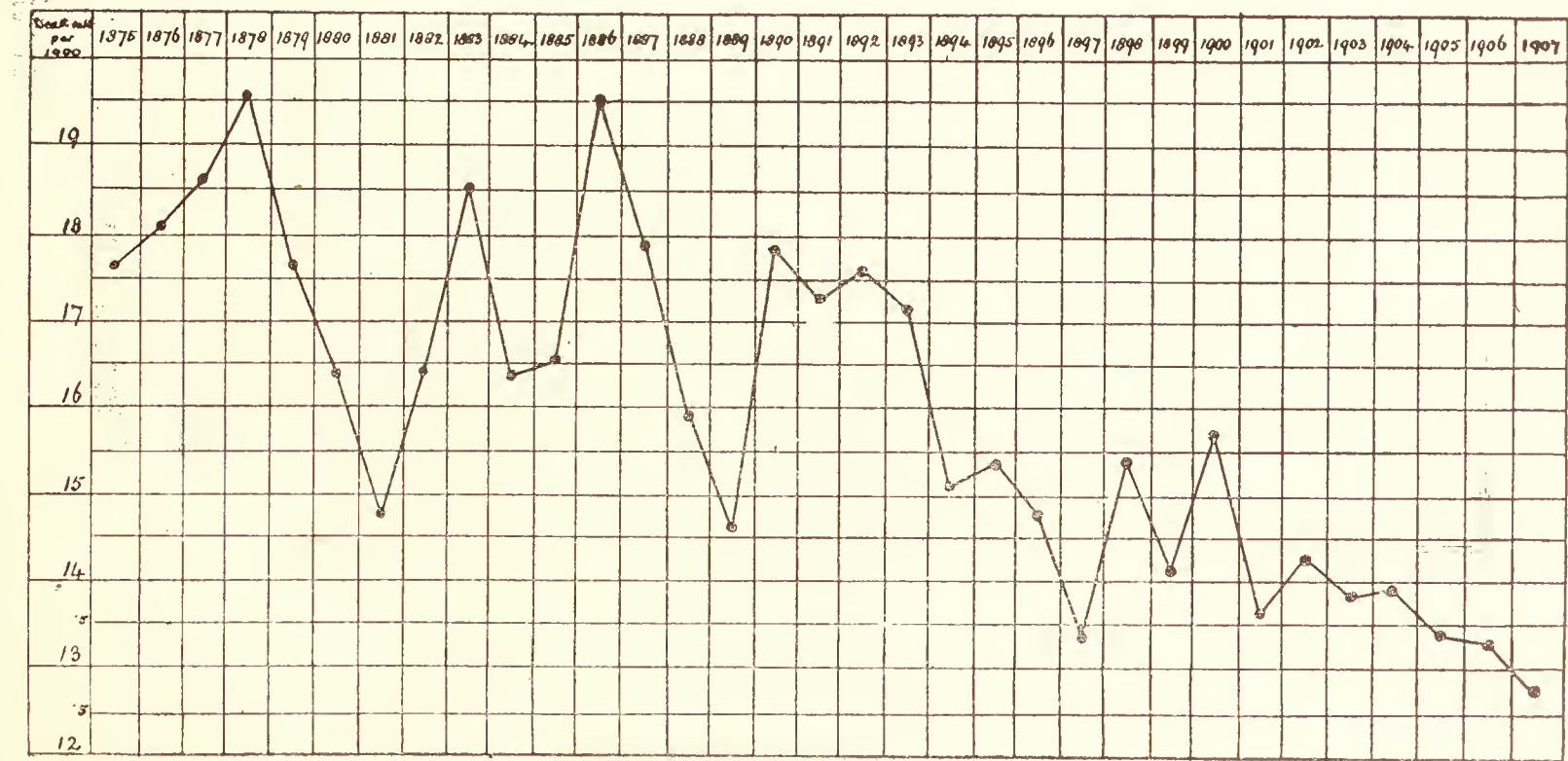
The total number of deaths registered is 585, equal to an uncorrected death-rate of 14·6. The deaths in Public Institutions outside the district of persons belonging thereto are six in the County Asylum at Fulbourn, two in the Hostel of God, Clapham; one in the County Hospital, Bedford; one in Ochil Hills Sanatorium, Milnathort, Cupar, which must be added; while 75 of persons not belonging to the district which have occurred in Addenbrooke's Hospital and 3 in the Infectious Diseases Hospital

Charts showing the Birth-rate and Death-rate of Cambridge for each year since 1875.

Birth-rate.



Death-rate.



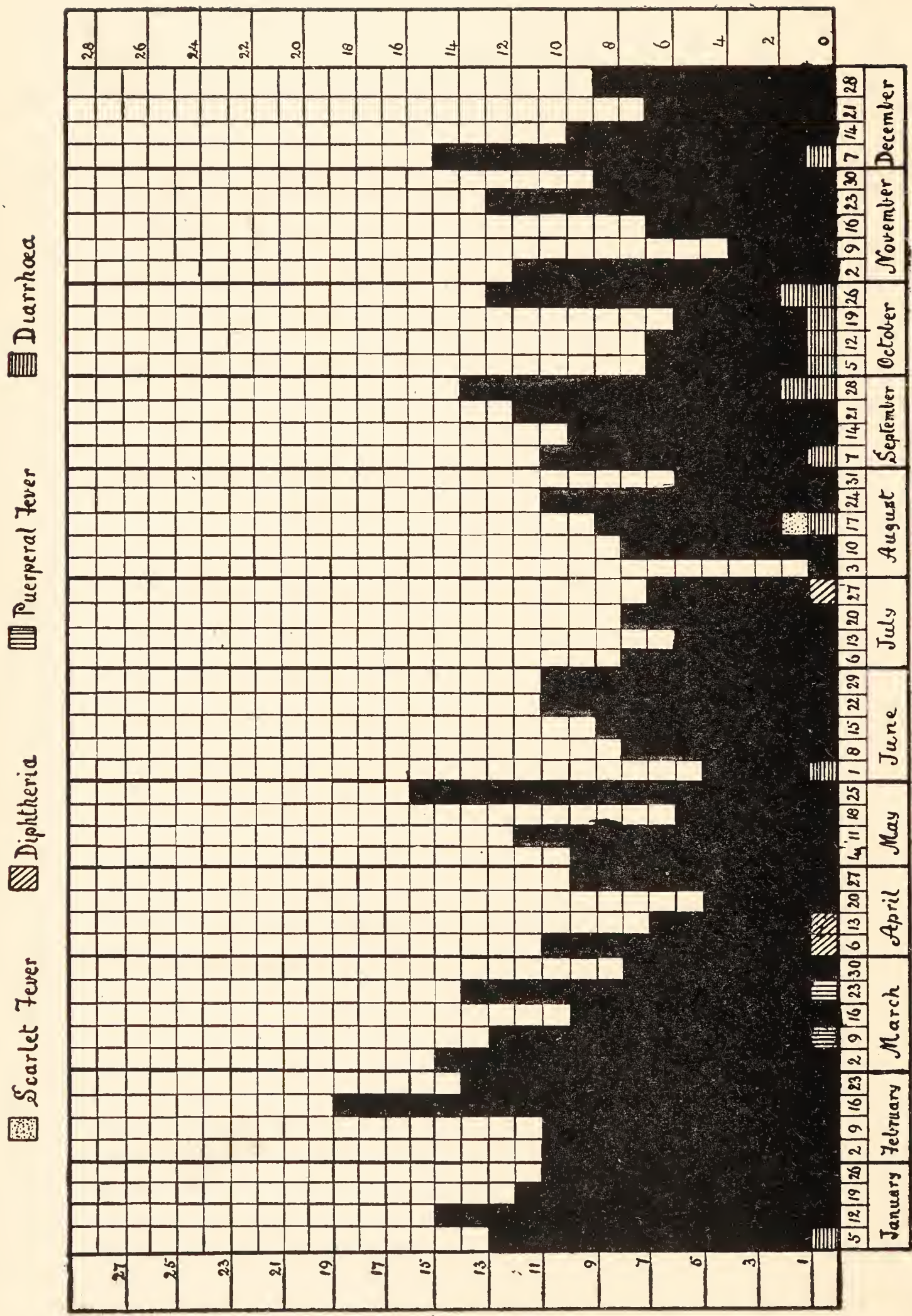


Chart showing the number of Deaths from All Causes during each week in 1907, distinguishing Deaths from Epidemic Diseases.

must be subtracted. The corrected number is 517* (251 males and 266 females), or 13 less than the corresponding number in 1906, and the crude death-rate 12·9 which is the lowest rate recorded during the past 32 years ; after applying the factor of correction, ·994, the corrected death-rate for Cambridge is 12·8. The mean rate for the previous ten years is 13·8. The death-rate for England and Wales for the year 1907 is given as 15·0 per 1,000, which is 0·4 per 1,000 below the rate in 1906, and lower than the rate in any other year on record.

Factor of
Correction.

The Charts on page 7 show the birth-rate and death-rate for each year from 1875 to 1907.

The deaths belonging to the chief epidemic diseases include 1 from Scarlet Fever, 3 from Diphtheria, and 12 from Diarrhœa (10 under 1 year of age), total 16, equal to a death-rate from these diseases of 0·40 per thousand of the population per annum, which is a lower rate by 1·43 than in the year 1906.

Epidemic
Mortality.

The mean rate for the previous ten years is 1·41. The death-rate from these diseases in England and Wales for the year 1907 is given as 1·26.

* This number includes 2 deaths in the St. Andrew-the-Less Sub-District, and 6 deaths in the St. Andrew-the-Great Sub-District, of persons not belonging to the district, but as they did not die in a Public Institution in the District they have to be by direction of the Local Government Board included in the total number of deaths. For a like reason one death belonging to St. Andrew-the-Great Sub-district is excluded. If the above corrections were made the crude death-rate would be 12·7, and the corrected death-rate 12·6.

Influenza. Influenza has contributed 14 deaths to the general mortality.

Infantile Mortality. Infantile mortality is represented by a ratio of 88 deaths under one year of age to 1,000 registered births. The mean rate for the previous ten years is 129. The Infantile mortality rate for England and Wales for the year 1907 is given as 118, which is 14 below the rate in 1906, and the rate in 1907 was lower than the rate in any other year on record.

Notification of Births Act. During the year the Notification of Births Act has been passed. It is an Adoptive Act. The most important provision for the early notification of births is contained in the first Section and is as follows :—

“(1) In the case of every child born in an area in which this Act is adopted it shall be the duty of the father of the child, if he is actually residing in the house where the birth takes place at the time of its occurrence, and of any person in attendance upon the mother at the time of, or within six hours after, the birth, to give notice in writing of the birth to the medical officer of health of the district in which the child is born, in manner provided by this section.”

This with the following clauses provides for the Medical Officer of Health receiving information of each birth which occurs in his district within 36 hours. At present on an average five and a half weeks elapse between the birth and the receipt by the Medical Officer of Health of information regarding it, so that when at the end of ten days mother and child

pass from the care of the midwife, four weeks are likely to elapse on an average before the Health Visitor visits the home. It would be easy for the Health Visitors to take over the work of the midwife and to teach the mother the methods of taking care of her baby just after she has left bed at the end of 10 days; it is difficult on the other hand to change the mother's methods after they have become established.

From what has been said it must be evident how useful the adoption of such an Act would prove to Cambridge where three Health Visitors are at work, and owing to the enthusiasm and liberality of certain residents an almost perfect organisation exists for the teaching of mothers as to the care of their infants.

As was to be expected the Cambridge Council adopted the Act and awaited the consent of the Local Government Board to make the adoption effective. At this point difficulties arose chiefly because the Act makes it the duty of the following persons to notify the birth :—

(1) the father.

(2) any person in attendance upon the mother.

always providing that if any one satisfies the Court “that he had reasonable grounds to believe that notice had been duly given by some other person” he shall not be liable to penalty.

A representative section of the medical men of Cambridge actively opposed the adoption of the Act, their position being that although they recognised the great value of the early Notification of Births to the Medical Officer of Health they did not see how

their consciences could allow them to notify a birth seeing that they considered that by doing so they would be committing a breach of confidence. A minor difficulty was that the legislature had thrown a duty on medical men for which it paid them nothing.

At a conference with the Public Health Committee it was pointed out that apart from this Act births had to be registered within 6 weeks, that the notification of births attended by doctors was of little importance to the authority compared to those attended by midwives, that the Local Authority would supply printed slips to the medical practitioners so that by handing these to the parent or attendant the doctor would have reasonable grounds to believe that notice would be duly given. In short the Local Authority tried to persuade the general practitioners not to oppose the adoption of the Act which while practically throwing only a small amount of trouble on medical men secured the early notification of births and insured that each mother should at least have the opportunity of receiving continued advice as to how to take care of her baby.

The deputation of medical practitioners on the other hand said that they would do everything in their power to secure the voluntary notification of births by the parents and midwives if the Council rescinded its adoption of the Act. They promised to meet the Public Health Committee later with a scheme to obtain notification of all births in which the Health Visitors would be likely to prove of any assistance to the mother or child.

So far as I can gather the Committee wish to await further proposals of the medical men, and if these appear likely to give a good result to give them a trial for a period, but if, at the end of that time, it is found that the proposals do not give the results expected by their promoters, the Local Government Board be no longer asked to withhold its consent to the Adoption of the Act.

At a meeting of Doctors and Midwives the following resolutions were passed and signed:—

RESOLUTION OF DOCTORS.

“If the Notification of Births Act be not adopted the Members of the Medical Profession in Cambridge agree to do everything in their power to procure the early notification of births in all cases which they think need the attention of the Public Health Authority.”

Signed by 20 Medical Practitioners.

RESOLUTION OF MIDWIVES.

“If the early Notification of Births Act be not adopted the Midwives of Cambridge agree to do everything in their power to procure the early notification of births in all cases except in a few instances in which they think there are important professional objections to give information.”

Signed by 7 Professional Midwives.

However unfortunate it may have been to make medical men responsible for the Notification of Births, still it seems a pity that medical men should stand in the way of the adoption of such a useful measure. No doubt these gentlemen do so because they could not themselves conscientiously carry out the Act, and because of their trust in the success of their scheme of Voluntary Notification. The probability appears to be however that if such a scheme is adopted the

constant effort to persuade the parents of the poorer class to notify will far outweigh any troubles likely to have accrued to medical men by their passively resisting the Act, and will be less effective seeing that it is the careless parent who requires supervision whom they will fail to persuade to notify.

From the carefully prepared reports of the Health Visitors it has been found possible to give some idea of the effect of the various methods of feeding the babies.

Before taking out any figures the following cases were excluded :—

I. Cases dying before they were four weeks old.

A great many children die from Premature Birth and conditions present at birth during this period.

The following is a list of these excluded cases :—

NO.	AGE AT DEATH.	CAUSE OF DEATH.
175	7 days	Immaturity.
186	9 days	Broncho-pneumonia.
352	1 day	Hæmorrhage from Umbilical Cord
360	17 days	Immaturity.
369	3 days	Immaturity.
396	A few minutes	Inability to breathe owing to membrane over face.
431	3½ hours	Immaturity.
520	15 days	Immaturity.
571	20 days	Immaturity.
592	6 hours	Immaturity.
598	1 day	Inanition.
598A	28 days	Inanition.
625	1 day	Immaturity.

II. Cases of death in which it was impossible to obtain a history.

NO.	AGE AT DEATH.	CAUSE OF DEATH.
713	3 weeks	Immaturity.
714	1 month	Marasmus.
715	1 month	Pneumonia.
716	2 days	Congenital Heart Disease.
717	5 hours	Accidental Suffocation.
718	12 days	Convulsions.
719	1 month	Malnutrition.
720	1 month	Convulsions.
721	2 days	Inanition.
722	2 days	Immaturity.
723	5 days	Convulsions.

III. Cases still alive which were not visited—101. The following is the result of the analysis of the 678 cases reported on by the Health Visitors in 1907, and 1222 for the years 1906 and 1907.

	1907.			1906-7.		
	Number reported on.	Number of Deaths.	Percent-age of Deaths.	Number reported on.	Number of Deaths.	Percent-age of Deaths.
Breast-fed entirely	464	8	1.7	800	14	1.7
Breast-fed partly	138	9	6.5	247	15	6.0
Not Breast-fed at all	76	4	5.2	175	21	12.0
Fed wholly or partly on cows milk	163	3	1.8	279	21	7.5
Fed wholly or partly on condensed milk...	18	2	11.1	35	4	11.4
Other foods added	110	2	1.8	221	10	4.5

The results are even more striking if deaths from epidemic diarrhoea during 1906 and 1907 are alone considered.

800 entirely Breast-fed	...	1 death or .12%
247 partly Breast-fed	...	11 deaths or 4.4%
175 not Breast-fed	...	17 deaths or 9.7%

These facts sufficiently prove the importance of the statements:—"Mother's milk is the safest, cheapest, and best food."

"If the baby requires more milk than the mother can give, supplement, but do not replace, the mother's milk by cow's milk; some milk from the mother is better than none at all."

Other interesting points brought out by these inquiries are mentioned below:—

Of children fed wholly or partly on Cow's milk,

147 had boiled milk.

13 had unboiled milk.

3 had sterilized milk.

I do not think one can take this ratio too seriously, as scalding would probably be regarded by most mothers as equal to boiling the milk.

Children fed on other foods than milk are grouped below according to Hutchinson's classification of prepared foods:—

Group	I.	Dessicated milks with some addition containing no unaltered starch, such as Allenbury's	16
-------	----	---	------	------	----

Group II. Farinaceous predigested foods, such as Mellin's, Benger's, and Malted foods 9

Group III. Farinaceous foods not predigested, such as Robinson's, Ridge's, Neaves', Frame Foods, Force, and Quaker Oats 19

To group III. we have to add 66 children fed on such foods as Rusks, Biscuits, and Bread Sops.

It is agreed that none of the above proprietary foods should be given except on the doctor's orders. Failing mother's milk, cow's milk is better for the normal child than those mentioned above, and possesses the advantage of being cheaper. No addition to a milk diet is required until the child is being weaned, when bread and milk and bread puddings may be added. Our figures are not large enough to prove anything with regard to the comparative effects of diets which include condensed milks and which embrace other foods.

Kind of Teat used:—At the first inspection the Health Visitors found that bottles with teats only were used in 109 cases: bottles with long tube and teat in 46 cases; in 13 cases a spoon was used. These figures 109, 46 and 13 for 1907 compared with 73, 62 and 9 in 1906. This comparison points to the instructions of the Health Visitors having already had an educative influence amongst the Cambridge Mothers; for a great effort was made to persuade the mothers to change from the long tube bottle to that with a teat only. It is well known that

it is impossible to cleanse the long tube, the inside of which becomes coated with a decomposing layer of milk, which must pollute even the purest milk drawn through it.

Comforters:—In 338 cases it was ascertained that a comforter was in use continuously and in 77 cases occasionally. Much has been written against the use of the Comforter, not only because of the frequency with which it finds its way uncleansed from the floor to the baby's mouth, but because of the unnaturally frequent and prolonged suction on the structures surrounding the mouth, and on digestion. The task before those who wish to abolish the "Comforter" is still proving an extremely hard one. In many cases one has to be content with an attempt to limit its use and to secure it from falling on the floor.

The following are the times the mothers were said to be in bed after confinement for 1906 and 1907.

Days	3	5	6	7	8	9	10	11	12	13	14	over 14
Cases	1	3	4	7	13	47	661	69	103	8	116	57

In the Rules of the Central Midwives' Board the lying-in period, for the purpose of the regulations, means the time occupied by the labour and a period of 10 days thereafter. This probably explains why so great a number should say that they stay in bed for 10 days. From a reliable source I learn that being in bed does not mean "in bed lying down for ten days," but means in a great many cases being in bed as much as possible, and especially about the time that the mid-

wife is expected to visit. What the table does prove is that it is not for lack of knowledge that Cambridge mothers shorten the lying-in period.

The numbers of deaths from Phthisis and Cancer ^{Phthisis and Cancer.} respectively, among persons belonging to the district are 41 and 47, and the death-rates per thousand living from these diseases are 1·02 and 1·17 respectively.

The deaths and death-rate from Phthisis and Cancer respectively, among persons belonging to the district, during the previous twenty years are set out in the following table:—

		PHTHISIS.			CANCER.		
		DEATHS.		DEATH-RATE.	DEATHS.		DEATH-RATE
1887	...	64	...	1·76	...	23	0·63
1888	...	58	...	1·59	...	27	0·74
1889	...	65	...	1·77	...	31	0·84
1890	...	78	...	2·12	...	39	1·06
1891	...	51	...	1·37	...	48	1·29
1892	...	59	...	1·59	...	30	0·80
1893	...	49	...	1·31	...	33	0·88
1894	...	58	...	1·54	...	53	1·41
1895	...	57	...	1·51	...	41	1·08
1896	...	56	...	1·47	...	42	1·10
1897	...	54	...	1·42	...	27	0·71
1898	...	45	...	1·17	...	34	0·88
1899	...	41	...	1·06	...	40	1·04
1900	...	47	...	1·21	...	44	1·13
1901	...	48	...	1·23	...	33	0·85
1902	...	42	...	1·07	...	23	0·59
1903	...	48	...	1·22	...	34	0·86
1904	...	38	...	0·96	...	44	1·11
1905	...	40	...	1·01	...	46	1·16
1906	...	42	...	1·05	...	34	0·85
Annual average for years 1887—1906		52·0		1·37		36·3	0·95

Comparative
Statistics.

The comparative statistics for the two areas respectively into which the district is divided, after distributing the deaths in the Union Workhouse, Addenbrooke's Hospital, the County Lunatic Asylum, and other Institutions outside the Borough, to their respective areas, are appended in the following table:—

REGISTRATION SUB-DISTRICT.	Deaths belong- ing.	Share of W.H.	A. H.	County Asylum.	Other In- stitutions.	Total.	Birth- rate.	Death- rate.
S. Andrew-the-Less	323	37	29	3	3	395	23·1	13·0
S. Andrew-the Great	107	5	6	3	1	122	11·8	12·6
Entire District ...	430	42	35	6	4	517	20·4	12·9

Disease Incidence.

Disease
Incidence.

Disease of an infectious character has been slightly greater than during the year 1906. The total number of cases notified during the year is 172 (10 fatal), equal to a case-rate per thousand of the population of 4·30. The number of cases notified during each of the ten years 1897—1906 is as follows : 171 in 1897, 217 in 1898, 226 in 1899, 276 in 1900, 172 in 1901, 256 in 1902, 550 in 1903, 183 in 1904 253 in 1905, and 164 in 1906, total 2468, equal to a mean case-rate per thousand of the population of 6·34.

Diphtheria.

During the present year Diphtheria has been less prevalent than in any year since 1899 with the exception of the years 1902 and 1906. The total number of cases notified is thirty-three in twenty-four

BOROUGH OF CAMBRIDGE.

EDUCATION COMMITTEE.

Information for Teachers as to the most obvious Symptoms of the Diseases they are desired to notify.

MEASLES. The onset is commonly sudden, with shivering and headache. The eyelids grow red, the eyes are blood-shot and watery. There is coughing and sneezing and the child has all the symptoms of a bad cold in the head. The child then commonly becomes much better, but only, however, to have a return of all the symptoms on the fourth day, with the appearance of a blotchy crescentic rash. The rash appears on the face and around the mouth, as well as on the body.

WHOOPIING COUGH. Begins like a cold in the head, with nasal discharge, sneezing, and watering of the eyes. There is also a dry cough, which is worse at night and later becomes paroxysmal in character. The paroxysmal stage proper is characterised by a series of short suffocative coughs, interrupted at intervals by crowing inspirations or whoops. The spasm of coughing terminates in the expulsion of mucus or vomiting of the food. Mild cases occur in which no whoop is present: these are as infectious as the more severe cases.

MUMPS. The first signs are pain, stiffness, and slight tenderness at the angle of the jaw below the ear. These conditions first appear on one side, commonly the left. They are soon followed by swelling. The swelling at times becomes so extreme, and the pain so acute, that the patient can hardly open his mouth. The opposite side begins to swell from twenty-four to thirty-six hours after the other side. Both sides reach the maximum about the fourth day, after the first appearance of pain. Slight cases occur in which the typical symptoms are not present.

SCARLET FEVER. The onset is usually sudden, with headache, sore throat, sickness and vomiting. The rash usually appears on the second day

and is finely spotted, evenly diffused and bright red. The face is flushed, but the parts around the mouth are pale. The rash begins on the neck and chest. At a later stage in the disease the skin peels. A scalliness of the face and neck may be seen, and later flakes of thick skin may come off the palms of the hands and fingers. The latter is very suspicious, and, if there has been a previous history of sore throat, is almost sufficient for a certain diagnosis of scarlet fever.

DIPHTHERIA. The onset is usually gradual. The child is out of sorts and languid. Sore throat is usually although not always complained of. Unlike Scarlet Fever, one side of the throat may be more affected than the other. The glands at the angle of the jaw may be much enlarged on one or both sides. Diphtheria may manifest itself as a nasal discharge. Such discharges are especially suspicious if one-sided and accompanied by a reddened area or sore under the nostril.

GERMAN MEASLES. The rash is as a rule the first sign of the disease. It commences on the face, and involves the circumoral skin. Cold in the head and sore throat are slight when present. Enlargement and hardening of the glands of the neck just behind the ear and at the back of the head are important signs, but may be due to irritation of the scalp due to vermin, etc.

CHICKEN POX affects nearly all school children. The illness is slight, and is never fatal in well-nourished children. The rash appears on the second day (never later) as small pimples, which rapidly become blisters, later pustules, and lastly scabs form.

In practically all these diseases mouth secretions and discharges from the nose or ear are highly infectious. The child should be forbidden to put his pencil or pen in his mouth. Seeing that saliva is distributed as a fine spray in singing and loud talking, such exercises (if essential) should be carried out with the children as widely apart as possible.

Peeling occurs in Scarlet Fever, Measles, and German Measles. This peeling skin is not now considered highly infectious.

SKIN DISEASE.

The teacher should report all cases of skin disease, and should separate them from the other children until they are seen by the Medical Officer or Nurse. In this way he will come to know those that are infectious.

DUNCAN FORBES, M.D.
MEDICAL OFFICER OF HEALTH.

September, 1906.

BOROUGH OF CAMBRIDGE EDUCATION COMMITTEE.

Notification of Children who have not attended School regularly.

Name of School.	Standard	Child's Name.	Residence.	Age.	Disease Notified.

REPORT OF VISITING NURSE.

Date of Visit.	Disease.	Directions Given.	Remarks.

Date.....

Signed.....

households, equal to a case-rate per thousand of the population of 0·82. Three of the cases proved fatal.

The chart facing page 20 shows that there was no considerable outbreak, but that the cases are fairly evenly distributed over the year. Five cases were traced to previous known cases; two were infected outside Cambridge; fourteen were untraced; in one case no history could be obtained; one was a Nurse infected at the Infectious Diseases Hospital; three cases were connected with one school, and four diphtheria bearing “contacts” were notified as cases of Diphtheria. All notified cases excepting three gave positive swabs. Two of these three probably were not Diphtheria, the third was a case of Tracheotomy.

The number of cases of Diphtheria notified, and the number of deaths registered in the district during each of the ten years 1897-1906 are set out in the following table:—

	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	Total.
Cases...	12	29	11	63	55	16	68	39	65	31	389
Deaths	—	5	—	3	7	2	11	10	18	12	68

Mean case rate 1·00; mean mortality rate 0·17.

Ten years deaths per cent. of cases 17·4.

The number of cases of Scarlet Fever occurring from 1897-1906 inclusive is 1313. It will be noticed that the number notified during 1907 is 76 (55 below the average) from 59 households. The case rate per 1,000 of the population is 1·90.

Scarlet
Fever.

The cases may be classed as follows :

(a) *Outbreak of cases of Sore Throat at Addenbrooke's Hospital.*

*Dates of onset of illness :—*15th September 3 cases ; 16th September, 4 cases ; 17th September, 1 case ; 4th October, 1 case.

Signs and Symptoms. The chief signs were Headache with slight cold in head followed by sore throat. In four cases tonsillar abscess developed, and in four cases a scarlet-fever-like rash appeared.

Occupation of those affected. All excepting the last case were members of the staff. The three cases taken ill on the 15th were a housemaid, a wardmaid, and a cook ; on the 16th two Nurses and two Porters ; on the 17th a scullery maid, and the last case, which developed on 4th October was a patient. All the cases excepting the last mentioned were removed to the Isolation Hospital. The housemaid, wardmaid, and the two porters were kept in Isolation Wards, while the two nurses, cook and scullery maid, who were notified as suffering from Scarlet Fever were placed in the Scarlet Fever wards amongst other cases of Scarlet Fever. Of the last four cases one had no rash, one had only a slight rash ; and two had definite rashes, the last two showed desquamation on hands and feet, whilst the case which had no rash and only suffered from quinsy showed no sign of desquamation at all.

Although the more severe cases were isolated, a large number of slight cases of sore throat occurred

amongst the other members of the staff about the same date. The source of the outbreak could not be traced.

(b) *Return Cases*.—Cases 71, 72 and 75 all belonging to one family may have been infected by case 62, whose history is as follows :—

No.	Sex.	Age	Onset.	Removal	Discharge.	Days in Hos-pital.	Compli-cations in Hospital	Condition after discharge.
62	F	8	13 Sept.	27 Sept.	16 Nov.	50	Quinsy. Nasal dis-charge. Enlarged Tonsils. Adenoids	Severe cold in head which was said to be pre-sent on dis-charge and was certainly pre-sent one week and three weeks after discharge.

The histories of the Return cases are now given:

No.	Sex.	Age	Onset.	Interval.	History of Contact.
71	M	4	21 Nov.	5 days	62 slept in same bedroom as 75; all used the same towel and frequently kissed each other.
72	F	$\frac{15}{12}$	22 Nov.	6 „	
75	F	5	5 Dec.	19 „	

With regard to the remaining cases, eight were infected outside the Borough; twenty-one were infected from previously known cases; one, a Nurse engaged in nursing Scarlet Fever, contracted the disease; and thirty-seven could not be accounted for.

The chart facing page 20 shows the weekly incidence of the disease.

The number of cases of Scarlet Fever notified and the number of deaths registered in the district during each of the 10 years 1897—1906 are set out in the following table :—

	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	Total.
Cases ...	52	103	157	141	74	203	284	66	132	101	1313
Deaths ...	—	—	1	2	—	3	6	2	2	1	17

Mean case rate 3·37 ; mean mortality rate 0·04.

Ten years deaths per cent. of cases 1·29.

Typhoid
Fever.

It is pleasant to be able to again report that the incidence of Typhoid Fever is still below the ten years' average. Only two cases have been notified during the year, viz.: one in January and one in December; this is the smallest number of cases reported in any year since the Infectious Disease (Notification) Act came into force. The case rate per 1000 of the population is 0·05. One case was that of a Nurse attending Typhoid Fever cases in the Local Hospital, and the other was a young man who had been invalided home from the Navy and probably was suffering from a relapse after Typhoid Fever.

The number of cases of Typhoid Fever notified, and the number of deaths registered in the district during each of the 10 years 1897—1906, are set out in the following table :—

	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	Total
Cases ...	67	51	35	31	22	13	6	9	8	4	246
Deaths ...	8	7	1	1	3	3	1	—	2	1	27

Mean case rate 0·63 ; mean mortality rate 0·06.

Ten years deaths per cent. of cases 10·9.

Puerperal
Fever.

Ten cases of Puerperal Fever have been notified during the year, and is the largest number notified in any year since the Infectious Disease (Notification) Act came into force. Two of the cases proved fatal.

History of Cases.—Of the ten cases five were primiparous and five multiparous. Of the total two died, giving a case mortality of 20 per cent.

Complications.—The presentations were normal in all the cases, Case 3 suffered from a contracted Pelvis which necessitated the use of instruments during delivery, and Case 4 suffered from Prolapsus ani.

Septic Conditions.—It is interesting to note that in Case 5 several members of the family had suffered from sore throat previously to the labour. In Cases 8 and 9 the midwife in attendance suffered from Sore Throat and Nasal discharge when attending the labours, while in Case 3 the midwife had a case of Ophthalmia in her practice. In Case 7 the Nurse introduced her hands as high as the Os to remove a part of the membrane which was retained. Thus five of the cases could be traced to definite septic conditions.

Other Conditions.—In case 6 there was a history of illtreatment during puerperium, and in Case 6 the mother was delicate and underfed. Thus in cases 2 and 6 the mothers were probably more susceptible to infection. Cases 1 and 10 were attended by medical men and the source of infection could not be traced.

The number of cases of Puerperal Fever notified and the number of deaths registered in the district during each of the 10 years 1897—1906 are set out in the following table:—

	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	Total
Cases ...	1	2	2	3	1	1	2	1	5	1	19
Deaths ...	—	—	2	1	1	1	1	—	2	—	8

Erysipelas. Fifty-one cases of Erysipelas have been notified during the year, equal to a case-rate per thousand of the population of 1·27. Four of the cases proved fatal.

 The number of cases of Erysipelas notified, and the number of deaths registered in the district during each of the 10 years 1897—1906, are set out in the following table:—

	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	Total
Cases ...	38	30	21	35	20	22	23	33	43	27	292
Deaths...	—	—	—	1	2	—	—	1	—	2	6

 Mean case-rate 0·75 ; mean mortality rate 0·01.

 Ten years deaths per cent. of cases 2·05.

Other
Notifiable
Diseases. No case of Smallpox, Cholera, Typhus Fever, Relapsing Fever, Continued Fever, or Plague, has been notified during the year.

Diarrhoea. Diarrhœa was present during January, August, September, October, and December, and caused 12 deaths. This is the smallest number of deaths recorded during the past twenty years with the exception of that for the years 1889, 1894 1902 and 1903 respectively. The death-rate from this disease is 0·22 per thousand living, and the death-rate for England and Wales for the same period is given as 0·29.

 The deaths and death-rate from Diarrhœa among persons belonging to the district during the previous twenty years are set out in the following table:

					DEATH						DEATH.
					RATE.						RATE.
DEATHS.						DEATHS.					
1887	...	...	27	...	0·74	1897	...	...	24	...	0·63
1888	...	...	11	...	0·30	1898	...	...	37	...	0·96
1889	...	...	8	...	0·21	1899	...	...	43	...	1·12

					DEATH.						DEATH.
					RATE.						RATE.
					DEATHS.						DEATHS.
1890	...	...	24	...	0·65	1900	...	...	17	...	0·44
1891	...	...	22	...	0·59	1901	...	...	21	...	0·54
1892	...	...	17	...	0·45	1902	...	...	7	...	0·18
1893	...	...	57	...	1·52	1903	...	...	6	...	0·15
1894	...	...	11	...	0·29	1904	...	...	29	...	0·73
1895	...	...	28	...	0·74	1905	...	...	14	...	0·35
1896	...	...	17	...	0·44	1906	...	...	42	...	1·05
Annual average for years 1887—1896					22·2	...	...	...	24·0	...	0·61
Annual average for years 1897—1906					23·1	...	...	...	0·60		
Annual average for years 1887—1906					23·1	...	...	...	0·60		

No deaths from Measles were registered during the year. The death-rate for England and Wales for the disease is given as 0·36.

Measles.

The deaths and death-rate from Measles among persons belonging to the district during the previous 20 years are set out in the following table:—

					DEATH.						DEATH.
					RATE.						RATE.
					DEATHS.						DEATHS.
1887	...	...	0	...	0·00	1897	...	...	0	...	0·00
1888	...	...	13	...	0·35	1898	...	...	35	...	0·91
1889	...	...	0	...	0·00	1899	...	...	0	...	0·00
1890	...	...	7	...	0·19	1900	...	...	1	...	0·02
1891	...	...	0	...	0·00	1901	...	...	2	...	0·05
1892	...	...	0	...	0·00	1902	...	...	44	...	1·12
1893	...	...	0	...	0·00	1903	...	...	0	...	0·00
1894	...	...	25	...	0·66	1904	...	...	12	...	0·30
1895	...	...	0	...	0·00	1905	...	...	9	...	0·22
1896	...	...	0	...	0·00	1906	...	...	1	...	0·02
Annual average for years 1887—1896					4·5	...	...	...	10·4	...	0·26
Annual average for years 1897—1906					7·4	...	...	...	0·19		
Annual average for years 1887—1906					7·4	...	...	...	0·19		

Whooping
Cough.

No deaths from Whooping Cough were registered during the year. The death-rate for England and Wales for the same period is given as 0·29.

The deaths and death-rate from Whooping Cough among persons belonging to the district during the previous 20 years are set out in the following table:—

DEATHS.						DEATH RATE.					
1887	...	...	10	...	0·27	1897	...	...	3	...	0·07
1888	...	...	12	...	0·32	1898	...	...	21	...	0·54
1889	...	...	13	...	0·35	1899	...	...	6	...	0·15
1890	...	...	39	...	1·06	1900	...	...	21	...	0·54
1891	...	...	21	...	0·56	1901	...	...	0	...	0·00
1892	...	...	2	...	0·05	1902	...	...	5	...	0·12
1893	...	...	9	...	0·24	1903	...	...	7	...	0·17
1894	...	...	17	...	0·45	1904	...	...	0	...	0·00
1895	...	...	2	...	0·05	1905	...	...	0	...	0·00
1896	...	...	19	...	0·50	1906	...	...	16	...	0·40
Annual average for years 1887—1896						Annual average for years 1897—1906					
14·4 ... 0·38						7·9 ... 0·20					
Annual average for years 1887—1906						DEATHS. DEATH-RATE.					
11·1						0·29					

Week ending				Small Pox	Chicken Pox	Diphtheria	Membranous Croup.	Erysipelas	Scarlet Fever	Enteric Fever	Puerperal Fever	Total
Jan.	5	...	...	...	...	2	...	2	...	...	...	4
"	12	...	...	...	...	3	...	...	...	...	...	3
"	19	...	...	...	...	...	...	...	...	1	...	1
"	26	...	...	...	...	...	...	...	...	...	...	...
Feb.	2	...	...	...	...	...	...	1	1	...	...	2
"	9	...	...	...	...	1	...	...	1	...	...	2
"	16	...	...	...	...	...	...	1	...	...	...	1
"	23	...	...	...	...	...	...	1	1	...	...	2
Mar.	2	...	...	...	...	...	...	...	2	...	...	2
"	9	...	...	...	...	1	...	1	2	...	1	5
"	16	...	...	...	...	...	...	...	1	...	...	1
"	23	...	...	...	...	...	...	1	3	...	1	5
"	30	...	...	...	...	...	...	1	2	...	...	3
April	6	...	...	...	...	1	...	...	1	...	1	3
"	13	...	...	...	...	4	...	1	...	...	1	6
"	20	...	...	...	...	4	...	...	2	...	...	6
"	27	...	...	...	...	1	...	4	1	...	...	6
May	4	...	...	...	...	1	...	1	2	...	...	4
"	11	...	...	...	...	...	...	1	2	...	...	3
"	18	...	...	...	...	...	...	2	...	...	...	2
"	25	...	...	...	...	...	...	...	3	...	...	3
June	1	...	...	...	...	...	...	4	3	...	...	7
"	8	...	...	...	...	...	...	2	3	...	...	5
"	15	...	...	...	...	1	...	1	2	...	...	4
"	22	...	...	...	...	1	...	1	1	...	...	3
"	29	...	...	...	...	...	...	1	...	...	...	1
July	6	...	...	...	...	...	...	...	...	...	1	1
"	13	...	...	...	...	...	...	1	1	...	...	2
"	20	...	...	...	...	1	...	...	1	...	...	2
"	27	...	...	...	...	2	...	3	2	...	...	7
Aug.	3	...	...	...	...	...	...	...	6	...	...	6
"	10	...	...	...	...	...	...	1	3	...	...	4
"	17	...	...	...	...	...	...	2	2	...	...	4
"	24	...	...	...	...	...	...	...	3	...	...	3
"	31	...	...	...	...	...	...	1	2	...	...	3
Sept.	7	...	...	...	...	1	...	1	1	...	...	3
"	14	...	...	...	...	...	...	...	1	...	1	2
"	21	...	...	...	...	...	...	2	5	...	1	8
"	28	...	...	...	...	...	...	...	4	...	1	5
Oct.	5	...	...	...	...	...	...	2	1	...	...	3
"	12	...	...	...	...	1	...	1	...	...	1	3
"	19	...	...	...	...	3	...	3	...	...	...	6
"	26	...	...	...	...	...	...	1	...	...	...	1
Nov.	2	...	...	...	...	...	...	2	1	...	...	3
"	9	...	...	...	...	...	...	1	...	...	...	1
"	16	...	...	...	...	1	...	...	2	...	...	3
"	23	...	...	...	...	...	...	1	4	...	...	5
"	30	...	...	...	...	2	...	...	...	...	...	2
Dec.	7	...	...	...	...	...	...	1	3	...	...	4
"	14	...	...	...	...	1	...	1	...	...	...	2
"	21	...	...	...	...	...	...	1	...	1	...	2
"	28	...	...	...	...	...	...	...	...	...	1	1
"	29, 30, 31	...	...	...	...	1	...	...	1	...	...	2
TOTALS				...	...	33	...	51	76	2	10	172

Physical
Features, etc.

PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.

A short concise description is given in the report for the year 1905.

HOUSE ACCOMMODATION.

House
Accommoda-
tion, etc.

So far as I can learn the accommodation is sufficient. Some difficulty is experienced in keeping houses of the cheaper class continuously let.

During 1906 a representation was made with regard to Collin's Court and 49 Northampton Street. Shortly after the representation had been made negotiations were entered into by the Corporation, to acquire certain properties to the North of Northampton Street between Castle Street and the entrance of Spotted Cow Yard, in order that the street might be widened. Whilst these negotiations were in progress no proceedings were taken to close the houses condemned, but now that the purchase has been completed it is hoped that some action will shortly be taken.

On 12th November, 1906, 7, 8, 9 and 9, and an unnumbered house in Carter's yard and 5 and 6, John's Place were condemned as unfit for human habitation. During the year under review all these houses except 5 and 6 John's Place have been pulled down. 5 and 6 John's Place are at present without tenants.

96, 97 and 98 East Road: These houses were represented as unfit for human habitation on 4th February, 1907, and were closed by the owner and

later on were sold. They have now been thoroughly overhauled at some considerable expense and are now in a sanitary condition.

Two houses in Brown's Yard were on the same date represented as unfit for human habitation. The sanitary conveniences of these houses have been increased, and an attempt has been made to admit more light; this was only very partially successful, and the houses, which unfortunately are the most recently built houses in Brown's Yard, remain badly lighted and insanitary.

OBSTRUCTIVE BUILDING IN BELL'S COURT.

A representation under Part II. of the Housing of the Working Classes Act, 1890, Section 38 was made on May 2th, 1907, regarding the above. On July 26th, a letter was received from the tenant of the "Three Tuns," offering to remove an obstructive building in the rear of the premises in order to satisfy the requirements of the Public Health Committee. With the permission of the Council, from whom the premises were leased, the obstructive building was pulled down.

OBSTRUCTIVE BUILDING TO THE WEST OF 1—4 RUSSELL COTTAGES.

A representation was made on the 27th May. This was received and the Borough Surveyor was asked to make the necessary report.

Adoption of Part III. of the Housing of the Working Classes Act, 1890.

On the 8th day of August the Council sanctioned the adoption of the above on the recommendation of the Law and Property Committee.

During the year fifteen houses situate in various parts of the town were reported as being filthy ; on notice from the Inspectors of Nuisances all the premises were cleansed.

Ten cases of overcrowding have been reported ; in seven instances the nuisance was satisfactorily abated by the removal of the families to larger dwellings, and in the other three by removal of some members of the respective families.

SEWERAGE AND DRAINAGE, EXCREMENT DISPOSAL, AND REMOVAL AND DISPOSAL OF HOUSE REFUSE.

Sewerage
and
Drainage, etc. Short descriptions relating to these are given in the Annual Report for the year 1905.

The number of drains re-constructed, etc., during 1907 is found in Table VII. It should be noted that no fewer than 330 previously hand-flushed W.C.'s have had flushing tanks supplied during the year.

WATER SUPPLY.

Water
Supply. The town is, except in a few instances where the supply is derived from wells, supplied by the Cambridge University and Town Waterworks Company.

Much attention has been paid recently to the question of the purity of the Water Supply. It may be useful here to give the dates of the reports which bear upon this subject so that they may be referred to readily.

Joint Report by Dr. Anningson and Professor Woodhead upon Outbreak of Enteric Fever at Fulbourn Asylum, July 26th, 1905 (see the 47th Annual Report of the Visitors to the Asylum).

Dr. S. Monckton Copeman's Report to the Local Government Board on an Outbreak of Enteric Fever at Fulbourn Asylum, near Cambridge, with special reference to risk of pollution of underground water supplies by the sewage of the Asylum (21st February, 1906).

Report by the Borough Surveyor to the Sewage Disposal Committee as to two schemes for connecting the drains of the Asylum to the Cambridge System (7th May, 1906). [The Visitors approached the Sewage Committee with a request that the cost of connecting the Asylum with the Cambridge System might be estimated. The preparation of these schemes do not indicate that Mr. E. Wareham Harry considered that connection to the Cambridge Sewers was the best solution of the question.]

Report presented by the Medical Officer of Health for Cambridge regarding Dr. Copeman's Report (14th May, 1906. See Council Minutes.)

Report of Dr. John C. Thresh on the best method of disposing of the Sewage of the Asylum (17th November, 1906. See the 49th Annual Report of the Visitors to the Asylum).

Remarks by the Cambridge Medical Officer of Health and Borough Surveyor on Dr. Thresh's scheme for Disposal of Sewage at Fulbourn Asylum (21st January, 1907).

Dr. Thresh's Notes on Criticisms of his first Report (5th February, 1907).

Dr. Thresh's Report on Fluorescein experiments

made on site recommended for treatment of the sewage by irrigation (12th April, 1907).

Report of the Conference at the Guildhall, Cambridge, 31st May, 1907.

Report of the evidence given at the Inquiry held by the Local Government Board on the 18th and 19th February, 1908.

From the list given it will be seen that the question of the guarding of the Cambridge Water Supply against danger is one which has given rise to considerable controversy. The line taken throughout by the Town Council and the University lay (1) in having the question dealt with not in piecemeal fashion but as a whole, also (2) in having as much light as possible thrown on the subject by the various experts who have been consulted. Owing to their criticisms of the conclusions of Dr. Thresh's first report, further experiments were carried on which produced, comparatively at least, a much broader basis for these conclusions; at their request the Local Government Board have held an Inquiry.

At the present time it would be inadvisable to discuss the question further; one can only hope that from the evidence obtained publicly and privately and from the researches of the Local Government Board Officials themselves, these gentlemen will be able to recommend some action which will remove the possibility, even if it be remote, of dangerous pollution of the water supply.

Several groups of houses were found to have water taps in common; in cases in which the tap was

inconveniently placed, or supplied too great a number of houses, additional taps were asked for. In this manner some 168 houses have been supplied with additional taps during the year. In cases where new flushing cisterns and water taps are supplied it is always advised that all available measures be taken to protect these from frost.

Places over which the Council have Supervision.

(I). SLAUGHTERHOUSES, KNACKERS' YARDS, AND
OTHER OFFENSIVE TRADES.

Applications for renewal of licences under the order made in respect of premises in Newmarket Road and Sturton Street, have been granted by the Authority.

Slaughter-
houses, etc.

An application for licence to use premises in Hills Road as a slaughterhouse was, on account of the unsuitability of the premises, refused by the Authority.

All slaughterhouses have been regularly inspected during the year, and any defects found have, on notice from the Inspectors of Nuisances, been remedied.

FOOD INSPECTION.

The public markets and provision shops are regularly inspected.

Food
Inspection.

On June 3rd and 4th respectively, a communication was received from the Medical Officer of Health of the Port of London, stating that a quantity of wet and damaged wheat, ex ss. "Nephrite," had been allowed to leave the West India Docks, con-

signed to a firm in Cambridge, on the understanding that it was not to be used for human food in any form, but for the purpose of feeding cattle or poultry only. Enquiry by the Inspector of Nuisances ascertained that the wheat had arrived and was being used for feeding cattle and poultry.

On November 23rd, 20½ stone of codfish was, after examination by a magistrate, ordered to be destroyed.

(II.) COMMON LODGING HOUSES.

Common
Lodging
Houses.

There are now ten licensed houses in the borough, and these places are under the special sanitary supervision of one of the Inspectors of Nuisances, and under the disciplinary supervision of a Sergeant of Police. During the year 120 visits to these premises have been made by the Inspector of Nuisances, who found them to be conducted in a satisfactory manner. Any defects discovered were promptly remedied by the owners.

(III.) FACTORIES AND WORKSHOPS.

I.—INSPECTION.

INCLUDING INSPECTIONS MADE BY THE INSPECTOR OF NUISANCES.

Factories and Workshops.	Premises.				Inspections.		Written Notices.
	Factories (including Factory Laundries)				...	—	—
	Workshops (including Workshop Laundries)					145	6
	Workplaces	...	...	...	...	30	0
	Total				...	175	6

2.—DEFECTS FOUND.

Nuisances under the Public Health Acts :

Particulars.					No. of Defects. Found. Remedied.	
Want of Cleanliness	...	...	...	...	14	14
Want of Ventilation	...	...	...	...	—	—
Overcrowding	...	...	...	...	1	1
Want of Drainage of Floors	...	...	...	...	—	—
Other Nuisances	...	...	...	...	5	5
Sanitary Accommodation	{	insufficient	...	...	1	1
		unsuitable or de-	...	...
		fective	...	...	1	1
		not separate for	...	...
		sexes	...	...	—	—

Offences under the Factory and Workshops Act :

Illegal occupation of underground bakehouse (S. 101)	...	...	...	...	...	—	—
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)...	...	...	...	...	...	—	—
Total					...	22	22

3.—HOME WORK.

List of Out-workers (Section 107).

		Twice in the Year.		Once in the Year.	
		Lists.	Out-workers.	Lists.	Out-workers
List received from employers					
Wearing Apparel—					
(1) Making, &c. ...	...	124	1061	3	4
(2) Cleaning and Washing		—	6	—	—
		<hr/>	<hr/>	<hr/>	<hr/>
Total	...	124	1067	3	4

Out-workers.

Addresses of	{	Received from other coun- cils	...	...	—	—
Out-workers		Forwarded to other Coun- cils	...	...	423	—

Prosecutions	...	...	...	---	—
No. of Inspections of Outworkers'					
Premises	...	...	...	3 ⁰	—
Outwork in unwholesome Premises					
(Sec. 158)	...	...	...	---	—
Outwork in infected Premises					
(Secs. 109, 110)	...	...	...	---	—

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year 395.

5.—OTHER MATTERS.

Matters Notified to H.M. Inspector of Factories :

	Class.	Number.
Failure to affix Abstract of the Factory and Workshops (S. 133)...	...	—
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5)	<div> <div>Notified by H.M. Inspector</div> <div>Reports of action taken sent to H.M. Inspectors</div> </div>	<div> <div>4</div> <div>1</div> </div>
Other	...	—

Underground Bakehouses (S. 101) :

Certificates granted during the year	...	...	...	—
In use at the end of the year	...	...	...	8

FACTORIES.

There are 4 factories in the district where more than 40 persons are employed, and the examination of these premises with regard to the provisions for escape in case of fire, has been attended to by the Fire Brigade Committee.

WORKSHOPS AND HOMEWORKERS' PREMISES.

Owing to pressure of work in other directions it has only been possible to devote a short time to the inspection of these places.

During the year 175 workshops (including 72 bakehouses), and 30 homeworkers' premises, have been examined. In most instances the orders of the Sanitary Authority have been readily carried out. The following is a summary of the defects observed and the remedies applied.

Trade Workshops and Homeworkers' Premises.	No.	Defects found to exist.	Result of Action.
Bakehouses	11	2 Paving dilapidated. 1 Ceiling dilapidated. 1 w.c. without flushing cistern. 7 Uncleanliness.	Paving repaired. Ceiling repaired. Flushing cistern provided. Premises cleansed.
Dressmakers	3	1 Overcrowding. 1 Uncleanliness. 1 Rainwater pipe connected direct to sewer.	Overcrowding abated. Premises cleansed. Rainwater pipe disconnected.
Laundries	3	Uncleanliness.	Premises cleansed.
Mineral Water Works ...	1	Closet unsatisfactory.	Closet reconstructed.
Tailors	4	3 Uncleanliness. 1 Rainwater pipe connected direct to sewer.	Premises cleansed. Rainwater pipe disconnected.

(IV.) DAIRIES, COWSHEDS AND MILKSHOPS.

There are in the Borough 32 Cowkeepers and 77 Dairy-men and Milk Purveyors; to this latter number must be added 36 Milk Purveyors who live in various parts of the county but deliver milk in the town.

Dairies,
Cowsheds
and
Milkshops.

The Inspectors of Nuisances have made 334 visits to Cowsheds and 301 visits to Dairies and Milkshops during the year, and in several instances orders for cleansing and limewashing have been carried out.

Considerable attention will have to be given in the future to structural defects in the present cow-sheds.

(V.) CANAL BOATS.

Canal Boats. Report under the Canal Boats Acts 1877-84, as required by the Local Government Board and communicated to the Board:—

“(1) Nine inspections have been made during the year of boats plying in the district. Eight of the boats inspected had complied with the regulations as to painting and other matters required by the Acts. The other boat was found to be unregistered.

“(2) With regard to the unregistered boat, this is a new iron boat built for the West Norfolk Manure Company. The master informed me he had made application for the boat to be registered and the Inspector of the Registration Authority (Downham) was prepared to register the boat when the necessary alterations required by the Acts had been carried out.

“(3) There were no women or children on board any of the boats, and no case of infection has been notified or traced.

“(4) Number of Registered Boats 5, 1907.”

SCHOOLS.

School Nurse. The system of notification introduced in the Autumn of 1906 continues to work well. It will be remembered that at that time a fully qualified Nurse, with 8 years' experience of District Nursing, was appointed at a salary of £95 a year.

What was proposed to supply the routine work of the School Nurse was a system of notification. The Head Teachers of all the departments of the various Schools were asked to notify certain diseases, and were accordingly supplied with books for the purpose. The following slip was placed inside the front cover of these books in order that the teachers might have before them a list of the diseases they were desired to notify.

INFORMATION FOR TEACHERS.

Children absent reported to have, and children present suspected of having, the following diseases should be at once notified :—

Fevers : Measles ; Whooping Cough ; Mumps.
 Scarlet Fever ; Diphtheria.
 German Measles ; Chicken Pox.
 General Rash with or without illness.
 Sore throat if Scarlet Fever or Diphtheria
 cases have occurred recently in the
 School or neighbourhood.

Skin Diseases : Impetigo (Scabs or crusted matter
 on face or in hair) ; Scabies or Itch ;
 Ringworm ; Vermin.

Eye Disease : Acute Conjunctivitis (Sore eyes).

Suspects should be sent home at once except in case of Skin Diseases.

Great care should be taken to make sure of the correct addresses ; this saves much time and trouble.

Teachers should on no account call at the houses of children suspected to be suffering from an infectious disease.

Notification forms for the Medical Officer of Health and the Education Department should be enclosed in one of the official envelopes supplied herewith, and sent at once to the Medical Officer of Health.

It will be seen that all the infectious fevers of childhood, all skin diseases, parasitic diseases, and acute conjunctivitis are included. In order that teachers might be guided in their selection of suitable cases for notification, cardboard sheets 12in. by 14in. were printed, similar to those used in Manchester, upon which were detailed the most obvious symptoms of the school notifiable diseases.

A copy of this card is given in miniature facing this page.

On filling in a notification form the books are so arranged that two copies are made. These are sent to the Public Health Department whilst the original is kept by the teacher. Of the two copies, one is sent to the School Attendance Officers so that they may at once become aware as to which children are to be visited by the Nurse; in this way overlapping of work is avoided.

From the teacher's notification a transcript is made on the form (see miniature facing this page) of the particulars noted, in the first line. The remainder is filled up by the Nurse.

MEDICAL INSPECTION.

NAME OF SCHOOL..... STANDARD OR CLASS..... DATE.....

I. ADDRESS AND OCCUPATION OF PARENTS.

Name of pupil
 Age years months
 Address
 Does pupil work before school hours? or after?
 If so, what occupation?

II. SCHOOL STANDARD OR CLASS.

Mental capacity—Excellent; Good; Medium; Dull; Defective.....

III. SCHOOL ATTENDANCE.

Regular or irregular
 Number of possible attendances in last school year.....
 Actual attendances
 If irregular, cause for irregularity
 If from illness, name disease

IV. PERSONAL APPEARANCE.

Nutrition—Well nourished; Medium; Thin

V. CLEANLINESS.

Of clothing (G.) (M.) (B.).....
 Of body..... (G.) (M.) (B.).....
 Footgear (G.) (M.) (B.).....
 Hair.....

VI. MEASUREMENTS.

Weight stones lbs
 Height inches.....
 Girth of Chest..... inches.....
 Greatest inspiration inches.....
 Greatest expiration..... inches.....
 Average of expiration and inspiration inches.....

VII. EYES.

Keeness of vision—
 right.....left.....both
 Refraction.....(H.) (M.) (A.).....
 Is there any squint present?
 convergent.....divergent
 Other diseases or deformities of eyes or eyelids

VIII. NOSE AND THROAT.

Nasal obstruction—
 Unilateral.....bilateral.....
 Mouth breathing.....cause.....
 Tonsils.....
 Pharynx
 Uvula
 Cervical glands—
 Anterior triangle.....posterior triangle.....

IX. EARS.

Keeness of hearing—
 Normal distance.....feet.....
 Right ear.....feet.....
 Left earfeet.....
 Diseases of ears.....

X. DEFORMITIES.

Extremities.....
 Spinal column
 Chest

XI. DISEASES.

Skin
 Glands
 Bones
 Joints.....
 Heart—
 Rate.....regularity
 Disease
 Lungs
 Abdominal organs
 Other diseases or injuries
 Vaccination—
 Number.....size.....

XII. OTHER OBSERVATIONS.

Previous Illnesses

Signature.....

On the morning following the Nurse's visit her various reports are considered by the Medical Officer of Health who decides whether or not any of the children ought to be excluded, and also whether any are unfit for School. The great majority of histories admit of little doubt as to how the cases should be dealt with. The children are therefore excluded or not, or are certified as fit and unfit. In the cases of exclusion, notices to that effect are sent to Parents and Teachers, and Sunday School Superintendents and in every case full information is given to the School Attendance Officers. This necessarily entails a large amount of clerical work, the number of notices sent during the year being, to Parents 403; to Teachers 410; to Sunday School Superintendents 313.

Cases which appear from the reports to be doubtful are visited by the Medical Officer of Health himself.

The following is a list of the number of Notifications received during the year 1907.

			Notification Forms.		Children Concerned.
School Attendance Officer	....		291	....	633
School Teachers	....	....	151	....	229
School Nurse	....	....	230	....	230
Medical Inspection of School Children (excluding defects of Vision)	....	....	63	....	63
Total	....		<hr/>735		<hr/> 1155

It will be observed that the greater number of cases are notified by the School Attendance Officers.

These officials notify every child who is absent from school on pretext of illness and is not attended by a doctor, and also all who are believed to have careless mothers or guardians who are unlikely to carry out treatment properly. It is needless to add that the hearty co-operation of the School Attendance Officers is most essential to the success of School Notification.

It should also be noted that a considerable number of cases requiring visitation are found by the Nurse and also during the Medical Inspection of School Children.

A list of diseases ascertained to exist during the year, and the number of exclusions resulting is given below :—

Disease ascertained by Nurse.		Excluded.	Disease ascertained by Nurse.		Excluded.	Disease ascertained by Nurse.		Excluded.
Scarlet Fever	10	10	Toothache and Bad Teeth	20	8	Sores	77	6
Diphtheria	2	2	Enlarged Tonsils	34	—	Scabies	13	13
Mumps	8	8	Adenoids and Mouth Breathers	5	—	Chilblains	13	—
Measles	29	24	Earache	15	—	Other Skin Diseases	11	4
Whooping Cough	21	21	Ear Discharge	17	—	Pediculi Capitis	49	23
Chicken Pox	83	83	Enlarged Glands	22	11	Lice on clothing	3	3
Diarrhoea	9	—	Tubercular Glands	1	—	Injury	28	1
Phthisis	1	—	Defective Eyes	26	—	Abscess	13	—
Erysipelas	1	—	Inflamed Eyes	23	7	Debility	1	1
Influenza	1	—	Eczema	6	—	Heart Disease	5	—
Febricula	2	—	Impetigo	11	11	Rheumatism	6	3
Rash	12	12	Ringworm (Head)	96	96	Chorea	1	—
Headache	20	1	Ringworm (Body)	47	47	Other	17	5
Colds, Coughs and Bronchitis	90	8				No apparent disease	173	—
Sore Throat	161	98						

The total number of visits paid were 5205; of these 1223 were first visits. These numbers sufficiently emphasize the fact that a history of illness is only a small part of the Nurse's work, and that further work has to be undertaken. This consists not only in reporting progress in writing to the Medical Officer of Health in every case at least once a week, but in seeing that practitioners are consulted and the prescribed treatment is carried out. Sometimes considerable pressure has to be brought to bear before certain families will consent to have advice from a doctor.

Ringworm of the Scalp.—An interesting experiment has been begun during the year regarding Ringworm. It is practically the universal custom to exclude cases of Ringworm of the Scalp from attendance at School. Although since the introduction of the X Ray treatment of Ringworm the time taken to cure such cases is shortened, not only are considerable sums of money lost yearly in grants by the exclusion of those children, but the education of the children also suffers seriously. In May, 1907, it was decided to allow children attending certain schools to go to school while suffering from Ringworm of the Scalp on condition that certain regulations were conformed with. As this arrangement appeared to be working satisfactorily, in November the following circular was issued to the Head Teachers of all the Elementary Schools:—

PUBLIC HEALTH DEPARTMENT,
GUILDHALL, CAMBRIDGE.

4th Nov., 1907.

DEAR SIR OR MADAM,

Ringworm of the Scalp.

The Hygiene Sub-Committee at its meeting

on the 16th October resolved that all children suffering from Ringworm should attend school subject to the carrying out of the following regulations:—

1. That an antiseptic ointment be applied regularly before the children start for school, and that the treatment is continuously carried out.
2. That the hair is kept short.
3. That a bag is provided for the hat or cap to be kept in while at school.

The Committee kindly request the teachers to give their assistance in the supervision necessary to see that the regulations are carried out.

It is also proposed that the School Nurse should visit the Schools at intervals in order that special reports can be made regularly to the Sub-Committee as to the progress of the cases.

If the teachers so desire they may have the children come to school without hats or caps, or they may allow the child to carry his cap in his pocket. Otherwise while at school the cap or hat must be placed in the bag provided for the purpose.

The teachers may, if they so desire, keep children suffering from Ringworm apart from the other children.

I will take it as a favour if the teachers will report any defaulters on the usual notification forms, in which case the child will be excluded, and pressure brought to bear on the parents.

The above scheme is thought worthy of an extended trial as the number of attendances lost by exclusion of children suffering from this disease is very considerable.

Yours very truly,

DUNCAN FORBES.

To the Medical Practitioners the following notice was sent :—

PUBLIC HEALTH DEPARTMENT,

GUILDHALL, CAMBRIDGE,

Nov. 6, 1907.

DEAR SIR,

Ringworm of Scalp.

The Hygiene Sub-Committee at its Meeting on the 16th of October decided that all children suffering from Ringworm should attend School provided that they conformed to the following regulations :—

1. That an antiseptic ointment be applied regularly before the children start for school, and that the treatment is continuously carried out.
2. That the hair is kept short.
3. That a bag is provided for the hat or cap to be kept in while at school.

It will therefore in the future be unnecessary to exclude children suffering from this disease from School as has been our custom previously.

If in any case you should think it desirable that a child should be excluded from school you will be good enough to grant the parents a certificate to that effect.

Yours very truly,

DUNCAN FORBES.

From the above the main features of the experiment will be gathered. It was thought that provided the hair was kept short, and the hat or cap was kept in a special bag, and a mild antiseptic ointment applied regularly before the child went to school, the possibility of Ringworm spreading was no greater than if the child was left at home. By having the children at School the application of the ointment regularly is insured, and the period of the disease shortened. It is too early to say whether this new line of action will prove a success or otherwise. It may be mentioned, however, that since the date of return of children suffering from Ringworm to school there has been no increase over the average of the number of cases notified. In the first five months of the year the number of notifications was 47 ; in the second five months 39 ; and in the last two months 10.

Scarlet Fever.—One recognises the benefit of the system of notification when one considers that 10 out of the total number of 76 cases occurring during the year were visited and discovered because of notification from the Schools.

Vermin in the Hair.—In the table on page 44 it will be noted that 49 cases of the above were visited. These cases were all of an extreme character, vermin, nits, and sores being usually present.

The question of Vermin in the Hair is one which will have to be seriously considered sooner or later. At present only the worst cases can be taken notice of; one might say that Nits in the Hair are almost universal in the hair of the girls attending the Schools mentioned in the Report on Medical Inspection of School Children during 1907, contained in the Appendix. The percentage was 84. Continual complaints are received from cleanly mothers of infection and re-infection of their girls' heads. In a few cases Pediculi were found on the bodies of the children and attempts were made to make their mothers cleanse them, and all assistance possible was given by way of disinfection. In one case the family was removed to the Sanatorium while the house and their clothes were purified. There seems to be some need of a convenient station where persons infected with Pediculi, either of body or head, can go to have themselves cleansed. The Corporation have powers given them by the Cleansing of Persons Act, 1897, to provide the machinery necessary to cleanse persons so affected who make application for such cleansing.

Cards similar to those issued in London and Brighton are sent out in this connection, but the work of persuasion of the mothers by the Nurse is the chief factor in attainment of cleansing.

Prevention of Dust in Schools.—During the Christmas Holidays the floors of the New Street

School were covered with a patent preparation called "Florigene." It is claimed that when floors are treated with this substance, dust falling upon them does not rise again. By its use the necessary weekly scrubbing of the untreated floors is saved, as all that is required after treatment is sweeping weekly with a hard broom. During the sweeping no dust rises. We are now in a position to substantiate the truth of all those claims, and the Hygiene Sub-Committee have been so much impressed by the usefulness of this preparation that they have taken steps to have it applied in every school provided the Managers' consent is obtained.

Employment of School Children.—Bye-laws have been recently formulated under the "Employment of Children Act, 1903." Before this was done enquiries were made by the School Teachers as to the number of boys employed. The information which they obtained was introduced in a report presented by me to the School Attendance Sub-Committee (14th February, 1908).

Out of 1517 boys questioned, 266 or 17·5 per cent. were employed out of school hours.

It may be interesting to note the more important of the facts given in the following Summary of Tables appearing in the Report.

Summary of Table showing the Ages of the children employed:—

Ages (years)	8	9	10	11	12	13	14	15	?	Total
Children employed	5	18	33	54	83	68	1	—	4	266

Summary of Table showing Occupations and the number of children so employed :—

Occupations.				Total.
Errand Boy	...	...	...	115
House Boy	...	...	...	36
*Paper Boy	...	...	...	58
Milk Boy	...	...	...	11
Barber's Boy	...	...	...	5
Doubtful and other	...	...	...	41
				266

* Of this number at least 21 sold Papers in the Streets.

Tables were also prepared showing :

Total hours at work per week.

Total hours worked per week in the dinner interval.

The following Table shows the hours on each day “before ” and “after ” school worked by these boys.

BEFORE SCHOOL.	Doubtful.	1	—	1	—	—	—	—	7
	2	8	6	4*	—	—	—	—	—
	1	28	16	15‡	12	1	—	—	—
	0	73	19†	24	14	13	1	1	—
Hours.		0	1	2	3	4	5	6	Doubtful.
AFTER SCHOOL.									

Examples of how to read this Table.

- † 19 boys who do not work before school, work one hour after school
- ‡ 15 boys who work one hour before, work two hours after school.
- * 4 boys who work two hours before, work two hours after school.

It was also found that 195 boys were employed on Saturdays and 36 on Sundays, and Tables were given showing the Hours worked by children on these days.

Nuisances.

Nuisances.

Nuisances of various kinds, as indicated in the Inspectors' Table in the Appendix to this report, have been dealt with.

Methods of dealing with Infectious Diseases.

The methods of dealing with Infectious Diseases are :—

Notification. (a) By notification, followed by enquiry.

Isolation. (b) Removal of patients to the Borough Infectious Diseases Hospital, or to Addenbrooke's Hospital respectively.—During the year 64 cases of Scarlet Fever (85 per cent. of those notified), 24 cases of Diphtheria, and one case of Typhoid Fever belonging to the Town, as well as two cases of Scarlet Fever, three cases of Diphtheria belonging to the Chesterton Urban District, and one case of Scarlet Fever, and six cases of Diphtheria belonging to the Chesterton Rural District and one case of Diphtheria belonging to the Ely Rural District have been admitted to the first mentioned institution, and one case of Typhoid Fever, five cases of Puerperal Fever, and one case of Erysipelas belonging to the Borough, and one case of Scarlet Fever, one case of Diphtheria, seven cases of Typhoid Fever and two cases of Puerperal Fever belonging to different parts of the County have been treated at the second mentioned institution. Where the patients are not removed advice is given to the householders as to

how best to carry out isolation of the cases in their own homes.

(c) School closure or particular exclusion from School.—It has not been necessary during the year to recommend the closure of any school on account of the prevalence of infectious disease.

School
Closure, etc.

Fifty five orders for the exclusion from School, for varying periods, of children from infected households have been sent to the teachers of the various elementary schools.

Circulars have been sent to 78 parents or guardians requesting them to refrain from sending any of their children to Day School, Sunday School, Church, Chapel or other place of assemblage, and to keep them out of the streets as much as possible until the risk of infection is passed; also 23 notices to superintendents of Sunday Schools requesting them to exclude the children of infected households from school till the risk of infection is passed.

(d) In cases of Diphtheria swabs are taken from other members of the family, and all known diphtheria-bearing persons are kept under observation until quite free from infection.

Prophylactic
Measures.

(e) After the removal, or at the conclusion of a case of infectious disease, the infected rooms are disinfected with Formalin either as a gas or as a spray, and the bedding, etc., is disinfected by steam at the Pumping Station. During the year the disinfecting apparatus has on two occasions, unknown to the disinfector, been tested with anthrax spores. On each occasion no growth was obtainable on culture after disinfection.

Disinfections

On April 18th, 1907, a most important step was taken by the Council when a scheme for the Voluntary Notification of Phthisis was adopted.

Measures including the examination of sputum, the distribution of advice cards, sputum boxes, spittoons, and the disinfection of rooms had been exercised for some considerable time, but it was felt that the patients could be assisted and advised in the earlier stages of the disease if notification were adopted. The Council were assisted in coming to this conclusion by the Cambridge Medical Society which unanimously resolved "that in the opinion of the Cambridge Medical Society it is eminently desirable that steps be taken by the Local Health Authority to initiate a system of Voluntary Notification of Phthisis."

During the remainder of the year sixteen notifications were received from medical practitioners, and these cases after a primary visit from the Public Health Officers, have been placed under the observation of the Health Visitors. The next important step was taken in January, 1908, when the Council resolved "that arrangements be made by the Medical Officer of Health to admit a few advanced cases into the Infectious Diseases Hospital, and to specially select those cases which he thinks are a source of danger to their surroundings. It is hoped that by thus materially assisting consumptives a greater number of notifications will be received."

Recently an experiment has been tried with a patent preparation called "Florigene" which prevents dust rising from floors. This has been used in several houses where consumptives lived, and the absence of

dust and consequent saving of labour have been much appreciated by the housewives, and at the same time the risk of infection must have been considerably reduced.

The details of the cases of Infectious Diseases notified during the year are set out in Table III. and the localities invaded are indicated on the accompanying plan of the town. The table immediately following furnishes an account in detail of the work of disinfection :—

Tabular
Indications.

RECORD OF DISINFECTION, 1907.

No. of Articles from each Disease.

Diphtheria.	Scarlet F.	Typhoid F.	Puerperal F.	Erysipelas.	
435	2284	106	170	15	
Measles.	Consumption.	Septicæmia.	Cancer.	Eczema.	Tetanus.
32	98	144	32	6	10
Ophthalmia.	Gangrene.	Vermin.	Scabies.	Miscellaneous.	
15	80	155	78	575	
Total.					
4235.					

No. of Separate Stovings.

128

Details of Articles Disinfected.

Beds.	Blankets.	Bolsters.	Clothing.	Cushions.	Mattresses.
84	371	105	1919	59	447
Palliasses.	Pillows.	Quilts	Sheets.	Miscellaneous.	
26	726	122	77	299	

ROOMS DISINFECTED.

Diphtheria.	Scarlet F.	Typhoid F.	Puerperal F.	Erysipelas.	
54	156	4	42	11	
Measles.	Mumps.	Whooping C.	Chicken P.	Cancer.	Consumption.
21	16	6	5	11	34
	Scabies.	Influenza.	Vermin.	Miscellaneous.	
	3	17	49	19	
		Total.			
		442			
		Drains Disinfected.	Cabs.		
		6	4		

In addition to the above, the Albert, Griffiths, Hatton, and Victoria Wards and the Operating Theatre at Addenbrooke's Hospital have been disinfected.

Fourteen houses reported to contain vermin have also been disinfected.

Adulteration
of Foods.

Sale of Food and Drugs Acts, 1875—1899.

A copy of the reports of the Public Analyst for the Borough of Cambridge upon articles analysed by him under the above Acts for the year ended 31st December, 1907.

It will be noted that all the samples were taken formally. Considerable annoyance was felt by certain members of the Council that prosecutions had not followed in certain cases in which samples had been taken informally. In order that the difficulty caused by certain of the samples taken informally being reported publicly to be adulterated, when no proceedings could be taken, arrangements were made for the analysis of such samples to be done at

the Public Health Office. During the year 150 samples of milk taken informally have been analysed there.

Samples.	By whom submitted.	Result of Analysis.	Observations.
9 Milk	Submitted by Officers appointed by the Town Council	All the samples were genuine.	
7 Milk 2 Seidlitz Powders	Submitted by Officers appointed by the Town Council	All the samples were genuine.	
No Samples	submitted for ana	lysis this quarter.	
5 Milk 8 Butter	Submitted by Officers appointed by the Town Council	All the samples were genuine.	All the samples were taken formally.

REPORT OF INFECTIOUS DISEASES HOSPITAL.

The institution now consists of one block for Scarlet Fever patients, a set of separate rooms for doubtful cases, one block for Typhoid Fever patients, and one for Diphtheria patients, an administrative block, a block available for private patients, a laundry, a mortuary, and a discharge room and bathroom. etc.

A bath room has been built during the year for the Isolation block ; this was a much needed improvement.

The more important repairs carried out during the year are as follows :—New stove and sink in the Enteric block. Veluring of the bath room of the Scarlet Fever block ; and new sink in Isolation block.

The Hospital is administered to my entire satisfaction.

From the following Tables it will be observed that 10 cases of Scabies and eight cases of Pediculosis of the body have been treated and cleansed respectively at the Sanatorium. The Matron and Nurses cheerfully undertook this rather disagreeable work. At the date of writing Advanced Phthisis patients are also being treated. The Committee, in allowing such cases to be taken into the Hospital, do so in the belief that, under a good administration, the risk of spread of infectious disease from one ward to another ward is very slight.

Patients remaining in Hospital on Dec. 31, 1906 :

Scarlet Fever	....	....	7
Diphtheria	....	....	13
			<hr/>
			20
			<hr/>

Patient admitted during the year :

Scarlet Fever	....	....	64
Diphtheria	....	....	36
Typhoid Fever	....	....	1
Measles	....	....	1
Scabies	....	....	10
Pediculi	....	....	8
Doubtful	....	....	7
			<hr/>
			127
			<hr/>

Patients discharged during the year :

Scarlet Fever	....	....	63
Diphtheria	....	....	41
Measles	....	....	1
Scabies	....	....	10
Pediculi	....	....	8
Doubtful	....	....	7
			<hr/>
			130
			<hr/>

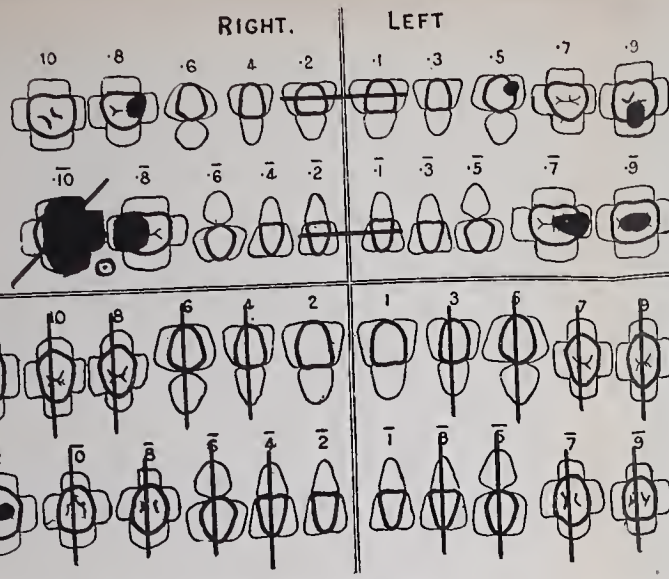
DEATHS.

Diphtheria	3
------------	------	------	---

Patients remaining in Hospital on Dec. 31, 1907 :

Scarlet Fever	....	....	8
Diphtheria	....	....	5
Typhoid Fever	....	....	1
			<hr/>
			14
			<hr/>

MARK EXTENT AND
POSITION OF DECAY.



SYMBOLS.

- Tooth Lost (temporary) —
- Tooth not Erupted ... |
- Tooth Extracted ... X
- Tooth requiring Xt. ... /
- Tooth with Fistula ... ⊙
- Tooth Erupting ... Λ

OPTIONAL.—Underline any of the following conditions if present.

STATE OF TEETH—

- (a) Clean. (b) Fairly clean. (c) Dirty.
- (d) Foul. (e) Stained.

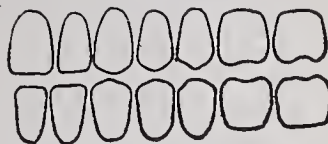
TARTAR—

- (a) Little. (b) Much.

TOOTHBRUSH—

- (a) Used. (b) Not used. (c) Has none.
- Natural arrest of caries, No. of.....
- Fractured teeth, No. of.....
- FISTULÆ, No. of.....
- „ opening on face, No. of.....
- Supernumary, No. of.....
- Geminated teeth, No. of.....
- TEETH FILLED, No. of.....
- Hare lip. Cleft palate (a) hard (b) soft.
- Mouth breather. (a) much caries.
- (b) little caries, (c) enlarged tonsils.
- Closure of Jaws. Cicatricial attach-ments.
- Necrosis of bone.

HONEYCOMBED*



Hutchinsonian*; Teeth No.....
Enamel defects not classified above.*

SOUND DENTITION—

- (a) Temporary. (b) Transitional.
- (c) Permanent.

RETARDED ERUPTION OF TEETH—

- From undue retention of Temporary Teeth.
- Protruding roots, No. of.....

GRINDING CAPACITY LOST FROM—

- (a) Defective or absent contiguous teeth on one side, on both sides.
- (b) Irregularity on one side, on both side.

TEETH IRREGULAR—UPPER.....LOWER.....

* signifies "see instructions."

If possible add up numbers, and fill in below.

TEMPORARY TEETH—

	No. of
A. Carious savable ...	6
Aa. Carious but not requiring filling ...	...
Ab. Prematurely lost ...	...
B. Requiring extraction ...	1
Total A.B. ...	7

PERMANENT TEETH—

C. Carious savable ...	3
Ca. „ unsavable ...	...
D. Already extracted ...	...
E. Requiring extraction ...	...
Total C.D.E. ...	...
F. Sound teeth to be lost ...	...
G. Teeth absent ...	...

10

REMARKS:

BOROUGH OF CAMBRIDGE.

PUBLIC HEALTH DEPARTMENT,

GUILDHALL, CAMBRIDGE,

15th February, 1908.

Report Re Medical Inspection of School Children.

According to Section 13 of the Education Act, 1907, and the Memorandum of the Board of Education issued in connection with this Act, it has become incumbent on Local Education Authorities to provide for a more or less thorough medical inspection of school children attending Elementary Schools.

This Medical Inspection has to be carried out at regular intervals, and the children recommended for examination are:—

- (a.) The children newly admitted ;
- (b.) The children about the 7th year of age ;
- (c.) The children of the 10th year of age ;
- (d.) Those children about to leave school ;

(ii.)

During the first year it is desired that at least all children entering and leaving school should be examined.

Fortunately in Cambridge some considerable experience has been obtained in the examination of school children, over 1000 having been examined during the year 1907. The method of examination was very thorough, a much more detailed schedule being used than that recently suggested by the Board of Education; the latter however indicated a minimum of work required. It is therefore possible to estimate the amount of fresh work which the new Act enforces, and to form a fairly clear idea of how the whole of the work ought to be undertaken.

The details of the work at present being done are given below.

The Schedule (Appendix No. 1) is filled up in the case of each child. A short time before going to any school the necessary number of schedules are sent to the Schoolmaster or Schoolmistress, and they in time past have filled in particulars regarding the first four Sections. This really includes the Name, Age (taken from Register), Address, Mental Capacity, Regularity of School Attendance, and Personal Appearance. It has now been found advisable to have notes of the Personal Appearance taken during the Medical Inspection seeing that it is as difficult to judge of the nutrition of a child

(iii.)

completely dressed as it is simple when partially undressed. Now therefore the first three Sections are filled in by the Teachers, while Section 4 and the remainder of the Sections are filled up during the Medical Inspection.

The routine work has been carried out in the afternoon, when it is possible to employ from $1\frac{1}{2}$ to $1\frac{3}{4}$ hours. The afternoon was chosen simply because the forenoon was already well occupied, had it been otherwise from 10—12 would have been selected as the time when the light was best; a good light is of especial importance for the correct testing of Vision.

Following the children through the various stages of examination they are first undressed to a certain extent, then all children take off their boots. The boys take off their jackets, waistcoats and shirts, and the girls slip their clothes over their shoulders down to their waists. The undressing is carried on under the observation of a teacher.

The children are weighed by an Assistant, and a note is made of their Height and Weight, the condition of their boots, and the Cleanliness of their clothing upon a slip similar to the following :—

Name

Weight Height

Footgear.....

Remarks :

After this, taking their schedule and slip they pass on to the Doctor who examines in order their General Nutrition and Appearance, the Nose, Throat, Neck Glands, Condition of Hair, Vaccination as to size and number of marks, and Cleanliness of body. Measurements are taken of the Girth of Chest, at rest and at greatest Inspiration and Expiration, and an examination of the Heart and Lungs is made. No notes are taken by the examining Doctor, who by adopting this method can get through his work more quickly. The record is made by the clerk, Mr. Wallis, who at the same time tests the hearing of the children.

The children now dress themselves, and are ready to have their teeth examined and their eyes tested.

Mr. Gant, the Dentist, maps out the number of teeth in each mouth, the position and extent of decay in each tooth, and the general condition of the mouth, on a Chart similar to Chart No. 2 in Appendix. From these Charts it is possible to gauge at any future time the exact condition of any individual tooth at the dates of examination. A moment's consideration will convince anyone of the advantage of this method over a mere note of the number of sound and decayed teeth.

The testing of the eyes by Nurse Dearden, the School Nurse, is done by means of Snellen's Test Types placed at a distance of 6 metres. Each eye is tested separately and also with a Positive lens.

From the following it will be seen that the complete examination may be divided into six parts, which may be named:—

1. Superintendence of Undressing and Dressing.
2. Measurements.
3. Medical Inspection.
4. Clerical Work and Testing of Hearing.
5. Dental Examination.
6. Testing of Vision.

Of these divisions the only one that can conveniently be left to the teacher is the undressing and dressing. It is advisable that all the remainder should be done by persons accustomed to the work. Apportionment of the work in this way leads to each division being fully and regularly employed.

The time taken for a child to pass through the whole examination is at the outside 18 minutes, viz. : 3 minutes for each division. In this way there are always more than 30 children examined in an afternoon, except in the case of very young children of 4 and 5 years, the handling of which requires more care. The reverse holds in the case of the dentist who takes 4 minutes for the older children and 2 minutes for each infant. This Medical Inspection at the school might be called preliminary work.

The other work that has to be undertaken is as follows:—

1. Cases of Heart Disease, of Lung Trouble, and of children who are reported as defective, and also many interesting and more

or less obscure cases require a further examination at the Public Health Office ; there, sufficient time can be spent to make a complete and accurate report and to give necessary advice to the parents, which it is impossible to do at the school, because it would delay the whole chain of proceedings.

2. Persuasion of parents to have their children treated.

The following paragraphs give details of some of the work following Medical Inspection.

- (a) *Vision*: Of 1336 cases examined 107 have been advised to have spectacles. A great majority of these children finally find their way to Addenbrooke's Hospital where they are treated.

The following table gives the number in which defects were found ; the numbers who were advised to have treatment ; the number treated ; and the number who now wear spectacles.

School.	Number examined.	Number in which defects were found.	Number who were advised to have treatment.	Number treated.	Number who now wear spectacles.
†St. Paul's Boys' ...	210	24	20	13	11
†St. Paul's Girls' ...	158	34	19	13	13
*East Road Boys' ...	244	49	13	12	8
*East Road Girls' ...	197	45	14	11	10
*East Road Infants'	182	68	12	11	7
*New Street Mixed...	209	74	11	6	3
*New Street Infants'	50	1	1	1	...
‡Occupation Road ...	86	23	17	12	4
Totals	1336	318	107	79	56

† Both eyes were tested together. Children with Defective Vision who could not read $\frac{6}{9}$ were recommended to have treatment.

* Each eye was tested separately. Children with Defective Vision of both eyes and Children with squint were recommended to have treatment.

‡ Each eye was tested separately. All Children with Defective Vision whether of one or of both eyes, were recommended to have treatment.

The parents are advised of the desirability of treatment by the following notice:—

BOROUGH OF CAMBRIDGE EDUCATION
COMMITTEE.

Public Health Department,

Guildhall,

Cambridge.

.....190

To the Parents or Guardians of

.....
residing at.....

*Your child, who is now in attendance at the
.....School
has been examined, and is reported to be suffering
from defective vision.....
which is likely to hinder his (or her) progress at
School. You are therefore advised to consult a
medical man at once, with a view to having the defect
remedied. You are particularly warned against
obtaining spectacles without a doctor's certificate.*

DUNCAN FORBES,

Medical Officer of Health

This notice would however effect very little if it were not followed up by a visit of the School Nurse who makes arrangements as to how the parents may best obtain treatment. Even after spectacles have been prescribed there is still difficulty in having them provided; many of the parents are too poor to buy them unaided.

(b) *Nose and Throat*: It is well known that patients suffering from enlarged tonsils frequently at the same time suffer from Adenoids. The diagnosis of enlarged tonsils and certain marked cases of Adenoids is very easy. The diagnosis of some Adenoid cases can only be made certain by digital examination of the space behind the nasal passages. Such an examination cannot possibly be made at the school. Up to the present 38 cases with marked enlargement of the tonsils, and a few suspicious cases of Adenoids have been advised to consult a doctor.

The following is a table of the number of those cases, and the number known to have been treated:—

	TONSILS.						ADENOIDS.	
	Total examined.	Much enlarged.	Enlarged.	Slightly enlarged.	?	Treated.	Adenoids suspected.	Treated.
Boys ...	572	24	82	122	5	6	19	1
Girls ...	518	14	38	175	41	4	8	...
Total ...	1090	38	120	297	46	10	27	1

(c) *Underfed Children*: Certain children are discovered who are extremely thin, and their home circumstances have to be enquired into in order to ascertain whether they are really underfed children. To come to a conclusion in such a matter is very

difficult, the statements of the children as to what they have to eat at various times not being trustworthy. The mere fact of enquiries being made however is likely to prove of some benefit to such children. In such cases a preliminary investigation is made by the school nurse, and at times it is found advisable to report either to the Society for the Prevention of Cruelty to Children, or to the Lady Superintendents of the Health Visitors.

(*d.*) *Teeth* : Each child who requires any dental treatment has the following notices to take home.

Cambridge Dental Institute for Children.

Hon. Director :
G. CUNNINGHAM, M.A., D.M.D., L.D.S.

Borough Dentist :
A. W. GANT, L.D.S.

12A, PARK SIDE,
CAMBRIDGE.

To the Parents of.....
attending.....School.

I have examined your child's teeth and find that there are some requiring immediate treatment.

If you wish your child to benefit by the Institute, (s)he must be at Addenbrooke's Hospital on.....
.....ato'clock prompt.

The teeth of children require as much attention as those of adults.

It is not generally known that the first double teeth of the second set come between the ages of $5\frac{1}{2}$ —7 years, immediately behind the last tooth of the first or milk teeth, before any of the first teeth are shed. They cannot be replaced, and ought to be kept throughout life. These teeth are extremely important, as the child must do nearly all its chewing with them until it reaches the age of 12 years.

If there is much decay in the first teeth, it is very likely to spread to the second teeth, and injure the child's whole chewing powers. If food is not chewed properly much of its value is wasted.

Children should be taught to brush their teeth thoroughly every night and morning, whether they belong to the first or to the second set. It is a serious mistake to suppose that because the first set are only temporary they can be safely disregarded. To keep them in good condition is very important for the child's health and growth.

See, therefore, that they are kept clean from the very first, for

“CLEAN TEETH DO NOT DECAY.”

Cambridge Dental Institute for Children.

Hon. Director :
G. CUNNINGHAM, M.A., D.M.D., L.D.S.

12A, PARK SIDE,
CAMBRIDGE.

Borough Dentist :
A. W. GANT, L.D.S.

To the Parents of.....
attending.....School.

I have examined your child's teeth and find that there are some requiring immediate treatment.

If you wish your child to benefit by the Institute (s)he must be at the above address on.....
.....at.....o'clock prompt.

The teeth of children require as much attention as those of adults.

It is not generally known that the first double teeth of the second set come between the ages of $5\frac{1}{2}$ —7 years, immediately behind the last tooth of the first or milk teeth, before any of the first teeth are shed. They cannot be replaced, and ought to be kept throughout life. These teeth are extremely important, as the child must do nearly all its chewing with them until it reaches the age of twelve years.

If there is much decay in the first teeth, it is very likely to spread to the second teeth, and injure the child's whole chewing powers. If food is not chewed properly much of its value is wasted.

Children should be taught to brush their teeth thoroughly every night and morning, whether they belong to the first or to the second set. It is a serious mistake to suppose that because the first set are only temporary they can be safely disregarded. To keep them in good condition is very important for the child's health and growth.

See, therefore, that they are kept clean from the very first, for

“CLEAN TEETH DO NOT DECAY.”

(xiii.)

DENTAL CARD (FRONT).

Cambridge Dental Institute for Children.

12a, PARKSIDE.

Hours :

9 a.m. to 1 p.m.

2.30 p.m. to 5 p.m.

Thursday and Saturday—9 a.m. to 1 p.m.

Name..... Age.....

Address

To come on

Monday1908, ato'clock.

Tuesday..... ” ” ”

Wednesday ” ” ”

Thursday " " "

Friday ” ” ”

Saturday ” ” ”

PLEASE BE PUNCTUAL.

PLEASE BRING THIS CARD AT EACH VISIT.

P.T.O.

DENTAL CARD (BACK).

How to take Care of the Teeth.

1. The teeth must be kept clean.
2. Use a small tooth brush with stiff bristles : use a little soap and some prepared chalk.
3. Brush all the teeth thoroughly, especially the back ones. Brush all surfaces of the teeth.
4. Clean the teeth immediately before going to bed. Take no food of any sort afterwards. Clean the Teeth again in the morning.

CLEAN TEETH DO NOT DECAY.

The treatment of the teeth of the children is enabled to be carried on through the generosity of MR. SEDLEY TAYLOR, who pays the dentist (Mr. GANT) to do that work. The table below speaks for itself :—

Sex.	Number examined.	TEMPORARY.	PERMANENT TEETH.			
		Carious.	Sound.	Defective.		Saved.
				Savable.	Unsavable.	
Boys ...	303	1637	2003	276	66	238
Girls ...	259	1138	2265	406	60	215
Totals ...	562	2775	4268	782	126	453

(e.) *Heart and Lungs*—HEART. In only 6 or 0·05 per cent. of the total number of school children examined were definite signs of organic disease of the heart found.

LUNGS. A considerable percentage of the children suffered from Bronchitis which in most cases was only of a temporary nature. Only 6 or 0·05 of the total number examined showed signs indicative of Phthisis.

In considering these figures one must remember that the place of examination was usually noisy, and many heart and chest cases might easily be overlooked.

(f.) *School Notifications* : The work of Medical Inspection includes the work carried on by the School Nurse. This important branch was described carefully in my last Annual Report.

(*g.*) *Records*: A point which is frequently overlooked during considerations of Medical Inspection is the amount of clerical work entailed. The records must be kept in such a way that any age in any department in any school can be readily compared with any school age in any other school.

To show what is meant a table has been prepared for children aged 7 and 10 years respectively in which totals and averages for weight, height, and chest measurements are given. Similar tables for Boys and Girls at the various school ages have been prepared. These tables are given on the following pages.

With such tables before us it is simple to take out averages for each school. It will also be simple to arrive at averages for the total number of children at any age or all ages.

NOTE.—In the following tables the figures in brackets indicate the number of children not weighed or measured, and in taking the average that number must be subtracted from the total examined, *i.e.* (—1) Girth, East Road, Infants, aged 7 years, means that only 21 children were measured.

Table giving Totals and Averages for Weight, Height, and Chest of children examined.

AGED 7 YEARS.

MEASUREMENTS.														
SCHOOL.	Total Number Examined.	Weight.				Height.		Chest.						
		Total.		Average.		Total.	Average.	Girth.		Inspiration.		Expiration.		
		Stones.	lbs.	Stones.	lbs.	Inches.	Inches.	Total.	Average.	Total.	Average.	Total.	Average.	
East Road Boys' Infants'	22	70	1'50	3	2'59	44'77	985'00	(—1) 487'37	23'21	529'94 (—2) 138'49	24'08	502'73 (—2) 129'74	22'85	21'62
New Street Boys' Infants'	8	23	1'00	2	12'37	41'53	332'25	175'48	21'93	146'36	23'08	140'12	23'35	22'39
Occupation Road Boys' Infants'	6	19	7'50	3	3'50	44'79	268'75	274'24	22'85	284'85	23'73	268'72	21'84	21'19
New Street Boys'	12	38	7'00	3	2'92	45'36	544'00 (—1) 925'50	489'60	21'72	67'87	22'62	42'37 (—2) 239'59	21'78	21'79
East Road Girls' Infants'	22	65	10'50	2	13'81	44'07	170'75 (—1) 487'25	86'87	22'18	276'36	23'03	108'99	21'79	21'99
New Street Girls' Infants'	4	11	11'00	2	13'25	42'69	266'24	111'37	22'27	187'36	23'42	175'98	22'22	22'22
Occupation Road Girls' Infants'	12	(—1) 32	5'00	2	11'09	44'29	236'75	179'73	22'46	(—3) 2258'58	23'52	(—5) 2088'72	22'22	22'22
East Road Girls'	5	17	3'00	3	6'20	47'35	362'50	(—1) 2212'76	22'57	2258'58	23'52	(—5) 2088'72	22'22	22'22
New Street Girls'	8	27	4'00	3	5'75	45'31	4312'75	2212'76	22'57	2258'58	23'52	(—5) 2088'72	22'22	22'22
Totals	99	(—1) 305	11'50	3	1'68	44'46	(—2) 4312'75	(—1) 2212'76	22'57	(—3) 2258'58	23'52	(—5) 2088'72	22'22	22'22

The following table has been constructed to show the number of cases which have been admitted since the establishment of the Hospital and the mortality which has occurred.

Year.	Small Pox.		Diphtheria.		Scarlet Fever.		Typhus Fever.		Typhoid Fever.		Erysipelas.		Measles.		Other Diseases.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1886	2	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	5	...
1887	...	...	15	3	6	...	...	...	...	...	1	...	...	...	1	...	23	3
1888	...	...	2	...	2	...	...	...	...	...	1	...	...	...	...	...	6	...
1889	...	...	4	1	13	...	...	...	1	...	1	...	...	...	...	...	21	1
1890	...	...	5	1	15	1	...	...	...	...	1	1	...	...	...	...	21	3
1891	...	...	2	...	11	1	...	...	12	2	...	...	...	...	...	...	25	3
1892	3	...	1	...	27	...	1	...	1	...	...	...	...	...	...	...	36	...
1893	5	...	...	...	81	1	...	...	3	1	...	...	...	...	2	...	91	2
1894	1	...	2	1	65	2	...	...	...	...	...	...	...	...	...	...	68	3
1895	1	...	4	1	34	...	...	...	5	...	...	...	...	...	...	...	44	1
1896	1	...	2	...	62	4	...	...	4	1	...	...	...	...	...	...	69	5
1897	...	...	3	...	41	...	...	...	22	1	...	...	...	...	...	...	66	1
1898	...	...	11	2	76	...	...	...	11	4	...	...	...	...	...	...	101	6
1899	...	...	2	1	120	1	...	...	...	...	1	...	...	...	...	...	122	2
1900	...	...	...	...	118	1	...	...	1	...	...	...	...	...	...	...	119	1
1901	...	...	13	...	61	...	...	...	4	...	...	...	...	...	...	...	78	...
1902	...	*1	4	...	183	2	...	...	6	2	...	...	...	...	...	...	193	5
1903	...	...	39	7	248	5	...	...	...	...	...	...	...	...	...	...	287	12
1904	...	...	29	7	59	...	...	...	4	...	...	...	...	...	...	...	92	7
1905	...	...	53	16	98	2	...	...	2	...	...	...	...	...	...	...	153	18
1906	...	...	42	10	119	3	...	...	1	...	...	...	...	...	...	...	162	13
1907	...	...	36	3	64	...	...	...	1	...	...	...	1	...	25	...	127	3

* Admitted as a case of Scarlet Fever.

TABLE I.

For the Whole District of Cambridge.

Table showing Vital Statistics for the year 1907 and the antecedent ten years.

YEAR.	Population estimated to Middle of each year.	BIRTHS.		TOTAL DEATHS REGIS- TERED IN THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Pub- lic Institutions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
				UNDER ONE YEAR OF AGE.		AT ALL AG S.					Number.	Rate.*
		Number.	Rate.*	Number.	Rate per 1,000 Births registered.	Number.	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1897.....	38042	939	24·6	125	133	551	14·4	136	52	11	510	13·4
1898.....	38228	884	23·1	142	160	617	16·1	112	36	9	590	15·4
1899.....	38416	869	22·6	122	140	587	15·2	148	58	16	545	14·1
1900.....	38607	923	23·9	128	138	657	17·0	138	58	9	608	15·7
1901.....	38732	794	20·5	107	134	577	14·8	145	59	9	527	13·6
1902.....	38968	842	21·6	121	143	606	15·5	133	60	11	557	14·2
1903.....	39157	884	22·5	99	111	578	14·7	142	56	19	541	13·8
1904.....	39347	819	20·8	113	138	597	15·1	155	61	14	550	13·9
1905.....	39540	891	22·5	71	79	588	14·8	167	70	13	531	13·4
1906.....	39731	791	19·9	110	139	599	15·0	170	77	8	530	13·3
Averages for years 1897—1906.	38876	836	21·5	113	135	595	15·3	144	58	12	549	13·8
1907.....	39924	816	20·4	74	90	585	14·6	155	78	10	517†	12·9

* Rates calculated per 1,000 of estimated population.

† This number includes eight deaths of persons not belonging to the district, two in St. Andrew's the Less Sub-District, and six in St. Andrew's the Great Sub-District, but does not include one belonging to St. Andrew's the Great Sub-District, owing to death having taken place elsewhere than in a Public Institution.

NOTE.—The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-resident" is meant persons brought into the district on account of sickness or infirmity and dying in Public Institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity and have died in Public Institutions elsewhere.

The Public Institutions taken into account for the purposes of this and the following Tables are Addenbrooke's Hospital, Infectious Diseases Hospital, and Union Workhouse, Cambridge, the County Asylum, Fulbourn, Cambs., County Hospital, Bedford, Ochil Hills Sanatorium, Milnarthorpe, and Hostel of God, Clapham.

Area of District in acres (exclusive of area covered by water).....	3,210.	
Total population at all ages.....	38,379	} At Census of 1901
Number of inhabited houses.....	8,700	
Average number of persons per house.....	4·4	

TABLE II.

Cambridge District and its Divisions.

Table showing Estimated Population, Births, Corrected Deaths at all ages and Infant Mortality for the year 1907 and the antecedent ten years.

NAMES OF LOCALITIES	1 Whole District.				2 St. Andrew the Less.				3 St. Andrew the Great.			
	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year
YEAR.	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>	<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>
1897.....	38042	939	510	118	Information not obtainable.				Information not obtainable.			
1898.....	38228	884	590	141								
1899.....	38416	869	545	118								
1900.....	38607	923	608	122	28281	778	442	106	10326	145	166	16
1901.....	38732	794	527	101	28519	681	387	90	10213	113	140	11
1902.....	38968	842	557	114	28814	697	408	94	10154	145	149	20
1903.....	39157	884	541	96	29105	736	414	78	10052	148	127	18
1904.....	39347	819	550	107	29399	702	418	91	9948	117	132	16
1905.....	39540	891	531	70	29697	752	392	58	9843	139	139	12
1906.....	39731	791	530	101	30066	660	412	80	9665	131	118	21
Areages of years 1897—1906...	38876	836	549	108								
1907.....	39924	816	517*	72	30300	702	395	62	9624	114	122	10

This number includes eight deaths of persons not belonging to the district, two in St. Andrew the Less Sub-District and six in St. Andrew the Great Sub-District, but does not include one belonging to St. Andrew's the Great Sub-District owing to death having taken place elsewhere than in a public institution.

- NOTES.—(a) The separate localities adopted for this table are areas of which the populations are obtainable from the census returns. Block 1 is used for the whole district, and blocks 2, and 3 for the several localities
- (b) Deaths of residents occurring in Public Institutions beyond the district are included in sub-columns *c* of this table, and those of non-residents registered in Public Institutions in the district are excluded.
- (c) Deaths of residents occurring in Public Institutions, whether within or without the district, are allotted to the respective localities, according to addresses of the deceased.

* * The information required by Note (b) and (c) is not obtainable for the sub-districts 2, and 3 for the years 1897—1899.

TABLE III.

Cambridge District and its Divisions.

Cases of Infectious Disease notified during the Year 1907.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.		NO. OF CASES RE-MOVED TO HOSPITAL FROM EACH LOCALITY.		Total cases re-moved to Hospital.
	At all Ages.	At Ages—Years.					1	2	1	2	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.						65 and upwards.
Smallpox
Cholera
Diphtheria	7	17	7	2	...	25	8	19	5
Membranous Croup
Erysipelas	6	32	13	42	9	...	...
Scarlet Fever	16	41	16	3	...	57	19	45	16
Typhus Fever
Enteric Fever	1	1	...	1	1	1	...
Relapsing Fever
Continued Fever
Puerperal Fever	4	6	...	7	3	...	...
Plague
Totals	...	172	23	58	34	44	13	132	40	65	21
											86

NOTES.—The localities adopted for this table are the same as those in Tables II. and IV.

In addition to the Town cases there have been two cases of Scarlet Fever and three cases of Diphtheria belonging to the Chesterton Urban District; one case of Scarlet Fever, and six cases of Diphtheria belonging to the Chesterton Rural District, and one case of Diphtheria belonging to the Ely Rural District, treated at the Infectious Diseases Hospital.

Besides those cases removed into the Borough Infectious Diseases Hospital, one case of Typhoid Fever, five cases of Puerperal Fever and one case of Erysipelas, belonging to the Borough, and one case of Scarlet Fever, one case of Diphtheria, seven cases of Typhoid Fever and two cases of Puerperal Fever belonging to different parts of the County were medically treated in Addenbrooke's Hospital.

The Borough Infectious Diseases Hospital is situated in the St. Andrew the Less Sub-District, and the Small Pox Hospital is situated in the Parish of Cherryhinton, in the Chesterton Rural District.

NOTES TO TABLES IV. AND V.

- (a) All deaths of "Residents" occurring in public institutions, whether within or without the district, are *included* with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-10, *included* among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrar. Deaths of "Non-residents" occurring in public institutions in the district are in like manner *excluded*.
- (b) See notes on Table I. as to meaning of "Residents" and "Non-residents," and as to the "Public Institutions" taken into account for the purposes of these Tables.
- (c) All deaths occurring in public institutions situated within the districts whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (a), entered in the last column of Table IV.
- (d) Under the heading of "Diarrhœa," are included deaths registered as due to Epidemic diarrhœa, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhœa, Dysentery and Dysenteric diarrhœa, Choleraic diarrhœa, Cholera and Cholera Nostras.

In addition, and as regards deaths of children *under one year of age*, under the heading "Diarrhœa" in column 3 (Table IV.) are included all deaths classified as "Diarrhœal diseases" in Table V.

Under the heading of "Enteritis" in Table IV., are included only death, *over one year of age* registered as due to Enteritis, Muco-enteritis Gastro-enteritis, Gastric catarrh, Gastritis, and Gastro-intestinal catarrh, unless from information obtained by enquiry from the certifying practitioner or otherwise, the Medical Officer of Health should have reason for including such deaths, under the specific term "Diarrhœa." Deaths from diarrhœa secondary to some other well defined disease are included under the latter.

- (e) Under the headings of "Cancer" and "Puerperal fever" are included all registered deaths from causes comprised within these general terms. Thus : Under "Cancer" are included deaths from Cancer, Carcinoma, Malignant disease, Scirrhus, Epithelioma, Sarcoma, Villous tumour and Papilloma of bladder, Rodent ulcer. Under "Puerperal Fever" are included deaths from Pyæmia, Septicæmia, Sapræmia, Pelvic peritonitis, Peri- and Endo-Metritis occurring in the Puerperium.
- (f) Under "Congenital Defects" in Table V. are included deaths from Atelectasis, Icterus neonatorum, Navel hæmorrhage, Malformations and Congenital hydrocephalus.
- (g) Under "Tuberculous Meningitis" are included deaths from Acute hydrocephalus.
- (h) Under "Other Tuberculous Diseases" are included deaths from Tuberculosis, Tuberculosis of bones, joints and other organs, Lupus and Scrofula.
- (i) All deaths certified by registered Medical Practitioners and all Inquest cases are classed as "Certified"; all other deaths are regarded as "Uncertified."

Cambridge District and its Divisions.

Causes of and ages at Death during the Year 1907.

CAUSES OF DEATH. 1	DEATHS IN OR BELONGING TO THE WHOLE DISTRICT AT SUBJOINED AGES.							Deaths in or belonging to localities (at all ages)		TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT. 11
	2 All ages.	3 Under 1.	4 1 and under 5.	5 5 and under 15.	6 15 and under 25.	7 25 and under 65.	8 65 and upwards.	9 St. Andrew the Less.	10 St. Andrew the Great.	
Smallpox... ..	...	...	...	...	...	...	...	...	...	...
Measles ... ..	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	1	...	1	...	...	...	...	1	...	...
Whooping Cough ... ..	...	...	...	...	...	...	...	...	...	...
Diphtheria and Membranous Croup	3	...	1	2	...	...	...	2	1	4
Croup ... ..	...	...	...	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...	1

Epidemic Influenza	14	...	...	...	1	4	9	9	5	1
Cholera ... ..	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...
Diarrhoea. (See notes at back)	12	10	1	...	...	...	1	10	2	2
Enteritis. (See notes at back)	1	...	...	...	...	...	1	1	...	...
Puerperal Fever	2	...	...	...	1	1	...	2	...	1
Erysipelas	4	...	...	...	...	3	1	2	2	2
Other septic diseases... ..	3	...	...	...	...	2	1	3	...	5
Phthisis	41	...	...	4	4	32	1	31	10	4
Other tubercular diseases	16	1	3	5	1	6	...	13	3	8
Cancer, malignant disease	46	...	...	...	...	29	17	32	14	20
Bronchitis	38	6	1	...	...	7	24	29	9	5
Pneumonia	34	14	4	...	...	8	8	26	8	3
Pleurisy	3	...	...	...	...	3	...	2	1	1
Other diseases of Respira- tory organs... ..	5	1	...	...	...	1	3	5	...	...
Alcoholism. Cirrhosis of liver	11	...	...	...	...	9	2	9	2	5
Venereal diseases ... ..	...	...	...	...	...	...	...	...	...	...
Premature birth	13	13	...	...	...	...	...	11	2	...
Diseases and accidents of Parturition... ..	2	...	...	...	...	2	...	2	...	...
Heart diseases	53	...	2	2	1	23	25	37	16	11
Accidents	7	2	1	...	...	2	2	6	1	8
Suicides	3	...	...	...	...	2	1	2	1	...
Malarial Fever ... ..	...	...	...	...	...	...	...	...	...	...
Not certified	2†	...	...	...	...	...	2	1	1	...
All other causes	203	25	9	3	9	54	103	159	44	74
All causes	517*	72	23	16	17	188	201	395	122	155

See Notes on next page.

* This number includes eight deaths of persons not belonging to the district, two in St. Andrew's the Less Sub-District and six in St. Andrew the Great Sub-District, but does not include one death of a person belonging to St. Andrew's the Great Sub-District, owing to death having taken place elsewhere than in a Public Institution.

† One of Cerebral Hæmorrhage and Old Age respectively.

TABLE V.

Cambridge District.

Infantile Mortality during the year 1907.

Deaths from stated Causes in Weeks and Months under one year of Age.

CAUSE OF DEATH.				Under 1 week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
All Causes.	}	Certified ... ..	...	17	1	4	2	24	13	8	2	2	2	5	5	2	7	2	...	72
		Uncertified ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
i. Common Infectious Diseases.	{	Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Measles ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Diphtheria: Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	{	Whooping Cough ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ii. Diarrhoeal Diseases.		Diarrhoea, all forms ... ..	...	...	2	...	...	2	...	1	1	1	1	1	...	...	...	1	...	8
		Enteritis ... ..	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
		Muco Enteritis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Gastro Enteritis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	{	Gastritis, Gastro-intestinal Catarrh ... ..	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
iii. Wasting Diseases.		Premature Birth... ..	...	8	...	2	1	11	2	...	...	...	...	...	...	...	...	...	...	13
		Congenital Defects ... ..	...	2	...	...	...	2	1	...	...	...	...	...	...	...	1	...	...	4
		<i>see notes</i> Table iv.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Injury at Birth ... ..	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
	{	Want of Breast-milk ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Atrophy, Debility, Marasmus ... ..	...	2	...	...	1	3	5	2	...	...	1	2	1	...	...	...	...	14
iv. Tuberculous Diseases.		Tuberculous Meningitis... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
		<i>see notes</i> Table iv.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Tuberculous Peritonitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	{	Tabes Mesenterica ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Other Tuberculous Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		<i>see notes</i> Table iv.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
v. Other Causes.		Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Syphilis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	{	Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
		Meningitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		(<i>not Tuberculous</i>) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Convulsions ... ..	...	1	1	...	...	2	1	...	...	...	...	...	...	...	...	...	...	3
		Bronchitis ... ..	...	...	...	...	...	...	2	1	...	...	...	1	2	...	...	...	...	6
	{	Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
		Pneumonia ... ..	...	...	...	...	...	...	1	3	1	1	...	...	1	2	4	1	...	14
		Suffocation, overlaying... ..	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
		Other Causes ... ..	...	2	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	3
				17	1	4	2	24	13	8	2	2	2	5	5	2	7	2	...	72

District (or sub-division) of Cambridge.

Population, estimated to middle of 1907, 39,924.

Births in the year { Legitimate, 775.
 { Illegitimate, 41.

Deaths in the year of { Legitimate Infants, 63.
 { Illegitimate Infants, 9.

Deaths from all Causes at all Ages, 517.

CAMBRIDGE, 1907.

Table showing Causes of Death at Different Age Periods during the Year.

Persons.—(Males and Females.)

CAUSES OF DEATH.	AGES AT DEATH.													
	All Ages.	Under 5 Years.		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards.
		0 to 1	1 to 5											
All Causes	517	72	23	8	8	7	10	34	34	54	66	78	95	28
A.—GENERAL DISEASES ...	180	29	11	6	6	2	6	20	17	25	25	18	15	...
B.—LOCAL DISEASES...	243	26	10	2	2	5	4	12	17	27	39	49	38	12
C.—OTHER SPECIFIED DIS...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
D.—ILL-DEFINED DISEASES...	84	15	1	...	...	...	...	1	...	1	...	9	41	16
E.—VIOLENT DEATHS ...	10	2	1	...	...	...	...	1	...	1	2	2	1	...
A.—General Diseases.														
Smallpox { Vaccinated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Not Vaccinated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ No Statement ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cowpox... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chickenpox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Rose Rash ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	1	...	1	...	...	...	...	...	...	...	...	...	...	...
Typhus ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Influenza	14	...	...	...	...	1	...	1	...	1	2	3	6	...
Whooping Cough ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mumps ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Memb : Croup	3	...	1	2	...	...	...	...	...	...	...	...	...	...
Cerebro-spinal Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Simple Cont : Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Asiatic Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Diarrhœa	9	8	1	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa	1	...	...	...	...	...	...	...	...	...	...	...	1	...
Dysentery ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malarial Fever... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hydrophobia ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Glanders ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Anthrax... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tetanus	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Syphilis... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gonorrhœa, Strict : Urethra...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal { Septicæmia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Pyæmia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Phlegmasia Dol :	...	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Fever ...	2	...	...	...	...	...	1	1	...	...	...	...	...	...
Infective Endocarditis ...	2	...	...	...	...	1	...	1	...	...	...	...	...	...
Epidemic Pneumonia } ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonic Fever } ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	4	...	...	...	...	...	...	1	1	1	...	1	...	...
Septicæmia (not puerp :) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pyæmia (not puerp :) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phlegmon ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phagedœna ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Septic Diseases... ..	2	...	...	...	...	...	...	1	...	...	...	1	...	...
Tubercular Phthisis	38	...	...	2	2	...	4	12	7	6	4	1	...	...
Phthisis	3	...	...	...	...	...	...	1	1	1	...	...	...	...

TABLE A, 1907.—Continued.

[illegible]

TABLE A, 1907.—Continued.

CAUSE OF DEATH.	AGES AT DEATH.													
	All Ages.	UNDER 5 YEARS.		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards.
		0 to 1	1 to 5											
3. DISEASES OF HEART.														
Valvular Dis, Endocarditis ...	15	...	...	1	1	...	...	...	...	2	3	4	3	1
Pericarditis ...	1	...	...	...	...	1	...	...	...	...	...	...	...	...
Hypertrophy of Heart...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Angina Pectoris ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dilatation of Heart ...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Fatty degen : of Heart ...	2	...	...	...	...	...	...	...	...	...	...	2	...	...
Degeneration of Heart ...	1	...	...	...	...	...	...	...	...	...	...	1	...	...
Syncope, Heart Disease ...	32	...	1	...	...	...	...	2	3	4	8	8	5	1
4. DIS: OF BLOOD VESSELS.														
Cerebral Hæmorrhage ...	24	...	...	...	...	...	...	1	2	3	9	6	2	1
<i>Apoplexy, Hemiplegia</i> ...	3	...	1	...	...	...	...	...	...	...	...	1	1	...
Aneurism ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Senile Gangrene ...	3	...	...	...	...	...	...	...	...	...	...	1	2	...
Embolism, Thrombosis ...	2	...	...	...	...	...	...	1	...	...	...	...	1	...
Phlebitis ...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Varicose Veins...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Blood Vessels (other Diseases)	5	...	...	...	...	...	...	1	...	1	1	...	1	1
5. DIS: OF RESPIRATORY SYS:														
Laryngitis ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Memb: Laryng: (not Diphth:)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Larynx (other Dis:)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis ...	38	6	1	...	...	...	...	1	...	2	4	10	11	3
Pneumonia { Lobar ...	10	...	...	...	...	...	...	1	2	3	1	2	1	...
{ Broncho ...	20	13	3	...	...	...	...	...	...	...	...	1	3	...
"Pneumonia" ...	4	1	1	...	...	...	...	...	...	...	1	...	...	1
Emphysema, Asthma ...	4	...	...	...	...	...	...	...	...	...	1	2	...	1
Pleurisy...	3	...	...	...	...	...	...	2	1	...	...	...	...	...
Fibroid Disease of Lung ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Respiratory Dis; (Other)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6. DIS: OF DIGESTIVE SYS:														
Tonsillitis, Quinsy ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mouth, Pharynx ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gastic Ulcer ...	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Gastic Catarrh ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stomach (Other Dis:)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...
<i>Gastro-Enteritis</i> ...	2	1	...	...	...	...	...	...	...	...	...	1	...	...
Appendicitis, Perityph: ...	5	...	...	...	...	...	1	1	1	...	...	2	...	...
Hernia ...	4	...	...	1	...	...	...	...	...	1	...	...	1	1
Intestinal Obstruct: ...	3	...	...	...	...	...	...	1	...	...	...	1	1	...
Other Diseases of Intestines ...	1	...	...	...	...	1	...	...	...	...	...	...	...	...
Peritonitis ...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
Cirrhosis of Liver ...	8	...	...	...	...	...	...	...	4	1	1	...	1	1
Liver and Gall Bladder (O.D.)	3	...	...	...	...	...	...	...	...	...	1	1	1	...
Digestive System (Other Dis:)	1	...	...	...	...	...	...	...	...	...	...	1	...	...
7. DIS: OF LYMPHATIC AND DUCTLESS GLANDS.														
Spleen, Disease of ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lymphat: Syst: (Other Dis:)	1	...	...	...	1	...	...	...	...	...	...	...	...	...
Thyroid Body (Other Dis:)	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Supra Renal Caps: (Dis: of) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8. DISEASE OF URINARY SYS:														
Nephritis Ac:; Uræmia ...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
Nephritis, Chronic ...	9	...	...	...	...	...	1	...	...	3	2	1	2	...
Ch: Bright's Dis: Albumin:...	6	...	...	...	...	...	...	...	1	2	2	...	1	...
Calculus...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bladder and Prostate Dis: ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Urinary Syst: (Other Dis:)	1	...	...	...	...	...	...	...	...	...	...	1	...	...

TABLE A, 1907.—*concluded.*

CAUSES OF DEATH.	AGES AT DEATH.													
	All Ages.	Under 5 Years.		5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and upwards.
		0 to 1	1 to 5											
9. DISEASES OF GENERATIVE SYSTEM.														
Ovarian Tumour ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Dis: of Ovary ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uterine Tumour	3	...	...	...	...	...	...	...	...	I	2	...	...	...
Other Dis: of Uterus & Vagina	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Disord: of Menstruation ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gener: and Mam Orgs: (other)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10. DISEASES OF PREGNANCY AND CHILDBIRTH.														
Abortion, Miscarriage ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Mania ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Convulsions ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Placenta Præv: Flooding ...	I	...	...	...	...	...	...	...	I	...	...	...	...	...
Other Ac: of Preg: & Childbirth	I	...	...	...	...	...	...	I	...	...	...	...	...	...
11. DISEASES OF LOCOMOTOR SYSTEM.														
Caries, Necrosis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Arthritis, Periostitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Locomotor Sys: (other) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. DISEASES OF THE SKIN														
Ulcer, Bed sore ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Eczema ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pemphigus ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Skin Diseases (other) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
C.—Other Specified Diseases.	...	...	...	...	...	...	...	...	...	...	...	...	...	...
D.—Ill-defined and not Specified Diseases.														
Atrophy, Debility	16	14	I	...	...	...	...	...	...	I	...	...	...	...
Old Age	65	...	...	...	...	...	...	...	...	...	...	8	41	16
Dropsy, Ascites, Anasarca ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tumour ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abscess ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hæmorrhage	2	I	...	...	...	...	...	...	...	...	...	I	...	...
Sudden (cause unascertained)	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Ill-defined	I	...	...	...	...	...	...	I	...	...	...	...	...	...
E.—Violent Deaths.														
1. ACCIDENT.														
Burns and Scalds ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poison, Poisonous Vapours ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Drowning	I	...	...	...	...	...	...	...	...	...	...	I	...	...
Suffocation	3	2	...	...	...	...	...	...	...	...	...	...	I	...
Falls ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Weather Agencies ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Otherwise or not Stated ...	3	...	I	...	...	...	...	I	...	I	...	...	...	...
2. HOMICIDE.														
3. SUICIDE.														
4. EXECUTION.														

TABLE VI.

Cambridge District.

Comparison of Prevalence of Sickness and Death from Infectious Diseases corrected by the exclusion of "Non-Residents."

(Rates calculated per 1,000 persons, on the population estimated to the middle of each year).

YEAR.	Small Pox.		Diphtheria, Membranous Group		Erysipelas.		Scarlet Fever.		Typhus Fever.		Enteric and Continued Fevers.		Puerperal Fever.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1897.....	0.00	0.00	0.31	0.00	0.99	0.00	1.36	0.00	0.00	0.00	1.76	0.23	0.02	0.00
1898.....	0.00	0.00	0.75	0.13	0.78	0.00	2.69	0.00	0.00	0.00	1.33	0.18	0.05	0.00
1899.....	0.00	0.00	0.28	0.00	0.54	0.00	4.08	0.02	0.00	0.00	0.91	0.02	0.05	0.05
1900.....	0.00	0.00	1.63	0.07	0.90	0.02	3.65	0.05	0.00	0.00	0.80	0.02	0.07	0.02
1901.....	0.00	0.00	1.42	0.18	0.49	0.05	1.88	0.00	0.00	0.00	0.56	0.07	0.02	0.02
1902.....	0.05	0.02	0.41	0.05	0.56	0.00	5.23	0.07	0.00	0.00	0.33	0.07	0.02	0.02
1903.....	3.93	0.38	1.73	0.28	0.58	0.00	7.25	1.53	0.00	0.00	0.15	0.02	0.05	0.02
1904.....	0.00	0.00	0.99	0.22	0.83	0.00	1.67	0.00	0.00	0.00	0.22	0.00	0.02	0.00
1905.....	0.00	0.00	1.64	0.45	1.08	0.05	3.31	0.05	0.00	0.00	0.20	0.10	0.12	0.00
1906.....	0.00	0.00	0.78	0.30	0.68	0.05	2.54	0.02	0.00	0.00	0.10	0.02	0.02	0.00
Average for years 1897—1906...	0.34	0.04	1.00	0.17	0.75	0.01	3.37	0.04	0.00	0.00	0.63	0.06	0.04	0.02
1907.....	0.00	0.00	0.82	0.07	1.27	0.10	1.90	0.02	0.00	0.00	0.04	0.00	0.25	0.05

TABLE VII.
Cambridge District.

Report of the Sanitary Work Completed during the year 1907 by the Inspectors of Nuisances.

INSPECTORS.	No. of Complaints received during the Year.	No. of Houses, Premises, etc., Inspected.	No. of Re-inspections of Houses, Premises, etc.	Results of Inspections.			House Drains.					Waterclosets, Majority hand-flushed.			Dung Pits.		MISCELLANEOUS.												
				Orders issued for Sanitary Amendments of Houses and Premises.	Houses, Premises, &c., Cleared, Repaired, Whitewashed, etc.	Houses provided with additional Water supply.	Tile Drains removed and Glazed Pipes substituted.	Drains Re-constructed.	Repaired, Cleared, Trapped, etc.	Ventilated.	Waste Pipes connected with Drains, etc., abolished.	Repaired, etc.	Supplied with Water.	New Provided.	New Provided.	Repaired, Covered, etc.	Unwholesome Houses Reported.	Overcrowding.	Removal of Accumulations of Dung, Stagnant Water, Animal and other Refuse.	Animals Removed, being improperly kept.	Bakehouses.	Workshops.	Common Lodging Houses.	Licensed Cowsheds, 32.	Dairies and Milkshops, 77.	Licensed Slaughter houses, 26.	Canal Boats.	Carravans.	Legal Prods: i.e. Summonses.	Samples of Water taken for Analysis.
1	293	326	529	126	52	36	94	94	126	96	56	6	...	5	10	3	68	22	...	72	103	...	206	196	148	9	42	...	12
2	183	520	711	237	109	102	7	101	154	66	64	5	4	5	5	7	36	15	...	...	103	120	128	105	141	...	120	...	1
3	398	658	3290	595	457	30	118	369	565	446	210	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS	874	1504	4530	958	618	168	219	534	845	608	302	686	330	22	10	15	104	37	72	103	120	334	301	289	9	162	...	...	13

Table giving Totals and Averages for Weight, Height and Chest of children examined.

AGED 10 YEARS.

School.	Total number Examined.	MEASUREMENTS.											
		Weight.				Height.		Chest.					
		Total.		Average.		Total.	Average.	Girth.		Inspiration.		Expiration.	
		Stones.	lbs.	Stones.	lbs.	Inches.	Inches.	Total.	Average.	Total.	Average.	Total.	Average.
East Road Boys' Infants'	2	6	4·50	3	2·25	97·75	48·87	46·75	23·37	49·62	24·81	46·25	23·12
East Road Boys'	46	(—1) 179	10·50	3	13·92	(—1) 2278·87	50·64	(—1) 1138·51	25·30	(—1) 1175·65	26·12	(—1) 1117·91	24·84
New Street Boys'	21	84	7·00	4	0·33	1035·75	49·32	(—2) 473·71	24·93	544·95	25·93	513·06	24·43
East Road Girls'	41	163	4·50	3	13·75	2069·12	50·46	961·89	23·46	1008·19	24·59	946·03	23·07
New Street Girls'	12	(—1) 42	2·00	3	11·64	537·50	48·86	282·97	23·58	296·73	24·72	278·46	23·20
Totals	122	(—2) 476	0·50	3	13·53	(—1) 6018·99	49·74	(—3) 2903·83	24·40	(—1) 3075·14	25·41	(—1) 2901·71	23·98

Table giving Totals and Averages for Weight, Height, and Chest of Children examined at the various School Ages.
BOYS.

MEASUREMENTS.													
Years.	Total Number Examined.	WEIGHT.				HEIGHT.		CHEST.					
		Total.		Average.		Total.	Average.	Girth.		Inspiration.		Expiration.	
		Stones	lbs.	Stones	lbs.	Inches	Inches	Total	Average	Total	Average	Total	Average
3	16	36	8.00	2	4.00	588.75	36.79	324.34	20.27	...	...	...	...
4	36	(-1) 85	12.50	2	6.38	(-3) 1262.50	38.26	747.54	20.76	(-34) 43.37	(-34) 41.62	(-34) 41.62	20.81
5	36	96	5.00	2	9.47	1455.75	40.44	768.43	21.62	(-26) 225.61	(-26) 214.87	(-26) 214.87	21.48
6	61	177	11.50	2	12.81	2601.93	42.65	1353.73	22.19	(-15) 1087.69	(-15) 1016.82	(-15) 1016.82	22.10
7	48	151	3.00	3	2.10	2130.00	44.37	(-1) 1078.95	22.95	(-2) 1099.64	(-2) 1041.31	(-2) 1041.31	22.63
8	70	(-1) 229	8.25	3	4.58	3241.25	46.30	1646.06	23.51	1711.98	1623.65	1623.65	23.19
9	57	209	7.75	3	9.47	2765.75	48.52	(-1) 1359.23	24.27	1438.16	1367.48	1367.48	23.99
10	69	(-1) 270	8.00	3	13.70	(-1) 3412.37	50.18	(-3) 1658.97	25.13	(-1) 1770.22	(-1) 1677.22	(-1) 1677.22	24.66
11	54	(-1) 248	4.25	4	9.58	(-1) 2752.75	51.93	1391.81	25.77	1448.40	1371.26	1371.26	25.39
12	66	(-2) 307	3.50	4	11.21	(-2) 3435.25	53.67	1722.89	26.10	1810.91	1704.93	1704.93	25.83
13	56	280	2.00	5	0.03	3067.37	54.77	1492.30	26.64	1565.67	1462.94	1462.94	26.12
14	3	15	10.00	5	3.33	168.50	56.17	81.11	27.03	85.49	80.25	80.25	26.75
Totals	572	(-6) 2108	13.75	3	10.16	(-7) 26882.17	47.57	(-5) 13625.36	24.03	(-78) 12287.14	(-78) 11602.35	(-78) 11602.35	24.32

Table giving Totals and Averages for Weight, Height, and Chest of Children examined at the various School Ages.
GIRLS.

MEASUREMENTS.													
Years.	Total Number Examined.	WEIGHT.			HEIGHT.		CHEST.						
		Total.		Average.		Total.	Inches	Girth.		Inspiration.		Expiration.	
		Stones	lbs.	Stones	lbs.			Total.	Inches	Total.	Average	Total.	Average
3	19	42	8'00	2	3'36	667'75	35'14	378'47	19'94	(-10) 180'36	20'04	(-9) 195'99	19'59
4	28	69	5'25	2	7'97	965'75	37'14	553'20	20'49	231'74	21'07	223'11	20'28
5	47	(-1) 121	11'50	2	9'08	(-1) 1846'50	40'14	(-1) 969'43	21'07	(-25) 480'97	21'86	(-25) 458'09	20'82
6	48	136	9'50	2	11'86	2032'00	42'33	(-1) 1012'78	21'54	(-10) 847'07	22'29	(-10) 807'81	21'26
7	51	(-1) 154	5'50	3	1'23	(-2) 2182'75	44'54	1133'81	22'23	(-1) 1158'94	23'18	(-3) 1047'41	21'82
8	58	200	2'50	3	5'59	2652'00	45'72	1310'91	22'60	1371'55	23'64	1289'43	22'23
9	49	185	1'25	3	10'88	2206'00	48'53	(-2) 1090'94	23'21	(-2) 1145'28	24'36	(-2) 1074'05	22'85
10	53	(-1) 205	6'50	3	13'31	(-1) 2606'62	50'12	1244'86	23'48	1304'92	24'62	1224'49	23'10
11	61	275	8'25	4	7'25	3179'75	52'12	1505'13	24'67	1576'77	25'83	1480'03	24'26
12	58	273	0'75	4	9'90	3141'75	54'17	(-1) 1425'99	25'01	(-1) 1494'64	26'22	(-1) 1401'12	24'58
13	44	(-1) 236	7'50	5	7'01	(-1) 2417'75	56'22	(-1) 1140'28	26'51	(-2) 1167'45	27'79	(-2) 1078'80	25'68
14	2	11	10'00	5	12'00	114'25	57'12	53'49	26'74	55'75	27'87	52'50	26'25
Totals	518	(-4) 1912	6'50	3	10'09	(-5) 24012'87	46'80	(-6) 11819'29	23'08	(-51) 10943'44	23'41	(-52) 10332'83	22'17

Special Tables have to be prepared for Vaccination, An interesting record is given below. It will be observed that the percentage with areas over 1 inch progressively diminishes the younger the children.

Yrs.	Total Examined.	Percentage with no visible Vaccination Marks.	Number of Marks.							Size of Marks.							Total Vaccinated.	
			?	0	1	2	3	4	4+	?	0	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1+	Percentage under 1 inch.	Percentage with 1 inch and over.
3	35	8.6	—	3	4	5	8	14	1	—	3	10	4	11	4	3	78	22
4	64	23.4	3	12	5	16	7	21	—	3	12	14	15	12	4	4	84	16
5	83	15.8	—	13	9	29	10	19	3	—	13	27	18	14	4	7	84	16
6	109	17.4	4	15	6	13	28	40	3	4	15	14	20	25	17	14	66	34
7	99	13.1	2	11	10	18	19	38	1	2	11	20	15	22	11	18	66	34
8	128	17.1	1	21	13	19	28	43	3	1	21	28	17	18	13	30	59	41
9	106	19.8	3	18	12	14	16	43	—	3	18	11	14	16	15	29	48	51
10	122	17.2	4	17	8	12	18	63	—	4	17	8	6	21	15	51	34	66
11	115	6.9	3	5	11	18	19	56	3	3	5	8	19	15	17	48	39	61
12	124	15.3	3	16	5	11	25	58	6	3	16	8	12	8	9	68	27	73
13	100	10.0	4	6	8	8	18	47	9	4	6	8	4	5	8	65	19	81
14	5	—	—	—	—	1	2	1	1	—	—	—	—	—	—	5	—	100
Tls.	1090	15.0	27	137	91	164	198	443	30	27	137	156	144	167	117	342	50.4	49.6

Special work is also undertaken with regard to Vision. The records of defects are kept on special forms. See Appendix No. 3.

Having dealt at some length with the details of the work of Medical Inspection I pass to a consideration of how the work is to be accomplished in the future.

It is evident that Medical Inspection, as intended to be carried out by the Board of Education, cannot be accomplished smoothly except under the supervision of the Medical Officer of Health. The environment of the child, not only at school but in the home, must be attended to. Apart from the sanitary conditions of home life, the spread of infectious disease is best checked in school by the Medical Officer of Health who is in possession of all notifications from the general practitioners, and has power to prosecute inquiries at school and in the homes. Cambridge has very wisely appointed a School Nurse, who acts under the direction of the Medical Officer of Health. If, on new duties being thrown on the Council, it is found necessary to appoint a doctor for the Medical Inspection of school children, there is no doubt the Central Bureau should be the Public Health Office, and the Director and Correlator of work should be the Medical Officer of Health.

Another point which is abundantly evident is that doctors cannot attempt to undertake the work of Medical Inspection without the help of a certain number of assistants. The most important factor in saving a doctor's time is the presence of a clerk to take notes; this allows the doctor to concentrate his attention on the child from the beginning to the end of the examination. The clerk ought to be a reliable worker and ought to be accustomed to take such notes.

If a Dentist be not appointed, then the doctor has to make a report on the condition of the teeth, but except exact records are made the work is of little value, and may even be misleading. In the first place the doctor, if he judges merely by vision, misses certain cases of incipient decay which a dentist would frequently discover by means of a probe. In the next place, in a cursory examination, a certain number of permanent teeth may be noted as being decayed, but this gives no indication of the amount of masticating surface lost which should be the chief aim of any dental examination. Medical men should only be expected therefore to report on the general condition of the mouth as to cleanliness and obvious defects.

The examination of the Eyes is undertaken in some places by the teachers, and in this way major defects are ascertained. In Cambridge the School Nurse has undertaken this work; she does it in a much more thorough manner than teachers would be asked to do. Teachers are asked to find what defect is apparent when both eyes are in use; the School Nurse, as before mentioned, tests each eye separately and also with a lens (+1D).

The measurement of Height and Weight is also at times left to the teachers. This along with the examination of the boots and cleanliness of clothes might be undertaken by them; in the last two however, it is well that one standard should be adopted, and even in measurement of Height and Weight mistakes might occur.

If we take it for granted that a doctor, a dentist, a clerk, and three other persons (who may or may not be teachers) are present, it becomes important to ascertain how much time it will take to examine the number of children required by the Board of Education to be examined annually.

To arrive at a conclusion a consideration of the following figures is necessary :—

Number of children attending Elementary
Schools in 1906 7186.

Taking the average school life as 9 years,
the Annual Average is 798 say 800

The 1908 examination includes	} All these figures apply to the minimal amount of work expected by the Board of Education
2 years, 1600	
The 1909 examination includes	
3 years, 2400	
The 1910 examination includes	
4 years, 3200	

The School year exclusive of holidays will give about 40 working weeks for Medical Inspection.

Number of Elementary Schools in the Borough
32.

Number attending vary from 100 to 433.

Examination of children at two age periods in the Largest School would take 3 afternoons; in the Smallest schools, only part of an afternoon.

Not more than one school can be done in any one afternoon.

From the above figures it would seem that the use of a doctor's time for 3 afternoons a week is necessary for Medical Inspection at School.

The above does not take into account the difficulties of picking out and examining children entering from Private Schools, or the fact that some boys leave Elementary Schools for Secondary Schools, and will then miss their final examination.

To the length of time the doctor spends in School there must be added the time taken in examining carefully the more obscure lung cases, skin diseases, etc., and further he must specify how the cases are to be dealt with, and give the School Nurse or other Sanitary Officials instructions as to procedure.

DUNCAN FORBES.

MEDICAL INSPECTION.

NAME OF SCHOOL.....	STANDARD OR CLASS.....	DATE.....
---------------------	------------------------	-----------

I. ADDRESS AND OCCUPATION OF PARENTS.

Name of pupil

Ageyears.....months.....

Address

Does pupil work before school hours?or after?

If so, what occupation?

II. SCHOOL STANDARD OR CLASS.

Mental capacity—Excellent; Good; Medium; Dull; Defective.....

III. SCHOOL ATTENDANCE.

RegularOr irregular

Number of possible attendances in last school year.....

Actual attendances

If irregular, cause for irregularity

If from illness, name disease

IV. PERSONAL APPEARANCE.

Nutrition—Well nourished; Medium; Thin

V. CLEANLINESS.

Of clothing(G.) (M.) (B.).....

Of body.....(G.) (M.) (B.).....

Footgear(G.) (M.) (B.).....

Hair.....

VI. MEASUREMENTS.

Weightstones.....lbs.....

Heightinches.....

Girth of Chest.....inches.....

Greatest inspirationinches.....

Greatest expiration.....inches.....

Average of expiration and inspirationinches.....

VII. EYES.

Keeness of vision—

right.....left.....both

Refraction.....(H.) (M.) (A.).....

Is there any squint present?

convergent.....divergent

Other diseases or deformities of eyes or eyelids

VIII. NOSE AND THROAT.

Nasal obstruction—

Unilateral.....bilateral.....

Mouth breathing.....cause.....

Tonsils.....

Pharynx

Uvula

Cervical glands—

Anterior triangle.....posterior triangle.....

IX. EARS.

Keeness of hearing—

Normal distance.....feet.....

Right ear.....feet.....

Left earfeet.....

Diseases of ears.....

X. DEFORMITIES.

Extremities.....

Spinal column

Chest

XI. DISEASES.

Skin

Glands

Bones

Joints.....

Heart—

Rate.....regularity

Disease

Lungs

Abdominal organs

Other diseases or injuries

Vaccination—

Number.....size.....

XII. OTHER OBSERVATIONS.

Previous illnesses

.....

.....

Signature.....



MARK EXTENT AND POSITION OF DECAY.

RIGHT.
LEFT

SYMBOLS.

Tooth Lost (temporary) ...

Tooth not Erupted ...

Tooth Extracted ...

Tooth requiring Xt. ...

Tooth with Fistula ...

Tooth Erupting ...

OPTIONAL.—Underline any of the following conditions if present.

STATE OF TEETH—
 (a) Clean. (b) Fairly clean. (c) Dirty.
 (d) Foul. (e) Stained.

TARTAR—
 (a) Little. (b) Much.

TOOTHBRUSH—
 (a) Used. (b) Not used. (c) Has none.

Natural arrest of caries, No. of.....

Fractured teeth, No. of.....

FISTULÆ, No. of.....
 ,, opening on face, No. of.....

Supernumary, No. of.....

Geminated teeth, No. of.....

TEETH FILLED, No. of.....

Hare lip. Cleft palate (a)hard (b) soft.

Mouth breather. (a) much caries.
 (b) little caries, (c) enlarged tonsils.

Closure of Jaws. Cicatrical attach-
 ments.

Necrosis of bone.

HONEYCOMBED*

Hutchinsonian*; Teeth No.....

Enamel defects not classified above.*

SOUND DENTITION—
 (a) Temporary. (b) Transitional.
 (c) Permanent.

RETARDED ERUPTION OF TEETH—
 From undue retention of Temporary Teeth.
 Protruding roots, No. of.....

GRINDING CAPACITY LOST FROM—
 (a) Defective or absent contiguous teeth on
 one side, on both sides.
 (b) Irregularity on one side, on both side.

TEETH IRREGULAR—UPPER.....LOWER.....

* signifies "see instructions."

If possible add up numbers, and fill in be

TEMPORARY TEETH—

A. Carious savable ...

Aa. Carious but not requiring
 filling

Ab. Prematurely lost ...

B. Requiring extraction ...

Total A.B. ...

PERMANENT TEETH—

C. Carious savable ...

Ca. ,, unsavable ...

D. Already extracted ...

E. Requiring extraction ...

Total C.D.E. ...

F. Sound teeth to be lost ...

G. Teeth absent ...

REMARKS:



School.....Department.....Class or Standard.....Date of first Examination.....19.....

[illegible]

"CAMBRIDGE—THEN AND NOW."

BY

BUSHELL ANNINGSOON, M.A., M.D.,

Medical Officer of Health for Cambridge, University Lecturer in Medical
Jurisprudence, Secretary State Medicine Syndicate, University of
Cambridge; President of the Eastern Counties Branch of the
Incorporated Society of Medical Officers of Health.

REPRINTED FROM PUBLIC HEALTH, AUGUST, 1905.

Bristol:
JOHN WRIGHT AND CO.,

“CAMBRIDGE—THEN AND NOW.”*

By BUSHELL ANNINGSOON, M.A., M.D.,

Medical Officer of Health for Cambridge, University Lecturer in Medical Jurisprudence, Secretary State Medicine Syndicate, University of Cambridge; President of the Eastern Counties Branch of the Incorporated Society of Medical Officers of Health.

WHEN the newly-constituted Eastern Counties Branch of the Society of Medical Officers of Health honoured me by electing me their first President, it became a matter of some anxiety to me to decide on what subject I could most fittingly address them. The geographical expression “Eastern Counties,” extending nearly from the Thames to the Humber, and including in its area the vast tracts of Fen-land, which between the times when Hereward the Wake held against the Normans the Isle of the Willow, and the great drainage works which led to the extinction of ague, suggested a review of the sanitary conditions prevailing through the centuries; but little consideration was needful to convince me that such a task was too great for me. I have, therefore, felt constrained to limit myself to the more narrow area of the University and Town where we are meeting, and to discourse awhile on “Cambridge—Then and Now.” One difficulty in my path is the difference of area occupied by the ancient place and the modern. There has been here, as elsewhere, expansion and displacement, and, perhaps, more displacement than elsewhere, by the intermingling of the colleges with the town; if Roman influence, which has been transitory all through the country, be left out of account, the ancient town may, as Prof. Maitland conceives it, be regarded as a larger village than others, but still a village, with its messuages and common lands. The history of its evolution from this state into one essentially urban—from a *vill* into a *civitas*—is not the present object, although the several stages of development have had a large influence upon the life history of the dwellers therein; the conditions of living in the far past, the middle period, and the present, might be expressed by a new set of degrees of comparison as bad, worse, better.

In its early period Cambridge town or *vill* was one of the hundreds† of the county, with the same sort of fields and messuages as the others.

The place has had many varieties of the present name, but the affix “bridge” is indicative of its importance, and according to Clark, “in the early middle ages the great bridge at Cambridge was the only

* Presidential Address delivered 17th June, 1905.

† A hundred (Saxon) was so named because it expressed an area of ten titheings, and each titheing of ten households.

point at which the river Cam could be crossed by travellers from the Eastern Counties to the Midlands, and Stourbridge Fair made Cambridge a trading centre at that time of far greater importance than it is at present.”

It had the name of Grantanbryge in A.D. 875, i.e. about King Alfred's time, and in Domesday Book, Grentebryge.

Two peculiar operating factors in the municipal life of Cambridge have been :—

1. The early intrusion into its boundary of the *studium*, and the development of the *studium* into the *universitas*, and the subsequent attempt on the part of the university to control the municipal life of the place.

2. The circumstance of its having always been a royal demesne, subject to the King only, and, to quote Atkinson, “no lower lord”; whereby, in the struggle for municipal freedom, which was in early times going on everywhere, they obtained by charter without great difficulty every privilege they desired.

Some historians assume that Cambridge University was founded by Sebert, King of the East Angles, in the year 664, that is about 200 years antecedent to the alleged foundation of Oxford by Alfred; but there is little to support this assumption.

Another main cause of the early and rapid rise of Cambridge into importance beyond that of the other villages, was its position at the head of a series of waterways connecting it with the ancient port of Lynn, and with the more western counties of Huntingdon, Bedford, etc.

The Recorder of Cambridge, in his speech of welcome to King James, March, 1614, says: “Touchinge the antiquitie and denomination, historians testifie it was builded before Christ's incarnation, with a castle, towers, and walls of defence by Duke Cantaber, the Sonne of the Kinge of Spayne, who was entertained in England by King Gurguntius; and the towne being situated and united with a bridge upon the river then called Canta, was denominated Cantabridge; and in tract of tyme the name of the river being altered to Granta, the towne likewise to Grantabridge; and after it was called Cam, and the towne Cambridge. . . . This river is current throughe the heart of the Shire, with navigation to the sea, and is the life of trafficke to this towne and countie; and no bridge is over the same but at Cambridge, and it is mantayned by fower score hides of land lyeing spavin in this Shire which are of your Majestie by pontage appropriate to this bridge only. . . .” *

Having regard to the Cam of now, it is scarcely conceivable it could ever have been of such importance to the prosperity of the town, but

* Cooper's *Annals* 111, 71.

from an incident which occurred a very few years after the visit of King James, 1649, and recorded by Badeslade, it may be gathered that the river must have been subject to tidal influences, otherwise the citizens of Cambridge and Lynn would not have so urgently protested against the construction of Denver Sluice (a lock about 12 miles below Ely), on the ground that such construction would stop the tidal wave and ruin the commerce of both towns.

"The Tide putting up so far into all these Rivers and filling them twice in every twenty-four Hours, they were not only competently supply'd with water from Sea in the driest Seasons to serve for the Inland Navigation, which by means of so many Branches is the most extensive in England, so that Commerce and Trade was constantly maintain'd up the River Nene to Well And up the River Ouse they could sail with forty Tuns Freight thirty-six Miles at least from Lenne at ordinary Neap-Tides; and great and constant Commerce was held to Cambridge, Bedford, etc."*

The following is from a petition of the Mayor, Aldermen, and Common Council of the town of Lenne, in Norfolk, against the erection of the sluice :—

"For it must be taken for granted, that the Flood cannot flow higher up the River than the Sluices, They most humbly pray that there be no sluices set upon the river of Ouse to hinder navigation."

In the Petition of the Vice-Chancellor and heads of Colleges in the University of Cambridge, together with the mayor and aldermen of the town of Cambridge, sheweth, that by an Act for the draining of the great level of the Fens, bearing date 29th May, 1649, it is ordered "that the navigation of the two rivers (Granta and Ouse), as to the conveyance from Cambridge to the town of Lenne, and from Lenne thither, will be thereby either wholly taken away or very much obstructed in regard the said river of Ouse, which by its joining itself with the river of Grant, doth many ways maintain, the said navigation will be altogether or in great part diverted to another course. As likewise the navigation between the town of Cambridge and the town of St. Ives, Huntingdon and divers others by the river of Ouse will be greatly interrupted. Whereby not only the said University and Town of Cambridge will be wholly undone, and all the adjacent countries greatly damnified and impoverished, but also a great prejudice will thereby befall to a great part of this whole nation, by the stoppage of the general commerce at Sturbridge fair."

* Badeslade's *History of the Ancient and Present State of the Navigation of the Port of King's Lynn and of Cambridge* (London: MDCCXXV.), page 12.

Denver Sluice was erected 1651, by the Corporation of Adventurers, and, subsequently, “was undermined first and afterwards blown up and destroyed by the Tides from Sea, Ano. 1713.”

Whether the fears of the petitioners were justified or not, the single bridge and the water facilities did doubtless bring about the commercial importance of the place.

“I cannot omit,” says Defoe, “that I came necessarily through Stourbridge Fair, which was then at its height . . . which is not only the greatest in the whole nation, but in the world; nor if I may believe those who have seen them all, is the fair at Leipzig in Saxony, the mart at Frankfort-on-the-Main, or the fairs at Nuremberg or Augsburg, anyway to compare to this fair at Stourbridge.”

The commercial value and glory of the river Cam, and of Stourbridge Fair, have dwindled almost to extinction, and although we have still a Navigation Authority, and Stourbridge Fair is still proclaimed by the mayor in state, yet they are both now mainly given over to amusement and sport, not by the way altogether without value, for the physical training and bodily discipline of rowing are certainly valuable, and even cocoa-nut shying may be a good training in accuracy of eye and deftness of hand. Four railways now connect Cambridge with other places, and have supplanted in object both the river and the fair.

Not merchants alone, it may be assumed, would resort to this great annual gathering, which was opened with much municipal pomp, but from the monasteries, which were so great and so numerous in this Fen-land, the masters of the novices would also come to lecture, and so gather round them bands of students; later the itinerant character of the teaching merges into some local and permanent system, with some directing head such as Rector; organization and specialization follow; and in the exact words of Mr. J. W. Clark, “the place gains reputation as a *studium*, and the little body of volunteers is saluted as *Universitas Vestra*.” The evolution of the University and its Colleges as we now know them, is not however my present object.

Besides merchants and students, Stourbridge Fair was then an importer and distributor of Mediæval plagues, just as now, dwindled as it is, within my own experience it has brought to us small-pox, typhoid fever, and diphtheria. In Cooper’s *Annals* are many references to the presence of plagues in Cambridge, sometimes for several successive years together, and one such is mentioned as being directly the result of the foregathering at Stourbridge Fair.

Another visitation of a plague, which was probably typhus (for the records give but little indication as to the real diagnosis of the prevailing sickness), occurred in 1521–2, and it is recorded that:—

“In thys yere, at the Assise kept at the castle of Cambridge in Lent,

the Justices and al the gentlemen, Bailiffes, and other, resorting thether, toke such an infeccion, whether it were of the savor of the prisoners, or of the filth of the houses, that manye gentlemen, as Sir Jhon Cut, Sir Giles Alington, knights, and manye other honest yomen thereof dyed, and all most all whiche were the present, were sore sicke and narrowly escaped with their lives."

Also that "The old parish of All Saints, at the Castle, has had no separate existence since the 14th Century, when the Black Death carried off almost the whole of its population. The church fell into ruins. It appears to have been situated on the south side of Huntingdon Road, and to the west of Mount Pleasant, on a spot now a garden, surrounded by a high brick wall."

That is what happened to the parishes and churches. Here is what happened to the clergy:—

"The mortality among the clergy was immense. In the year of the great sickness (1349), the appointments to livings rose to 97, chiefly in the month of July. The recurrence of such visitations all through the middle ages was very frequent, but the records of the later visitations are the fullest."

And this is what happened to the doctors.

"The plague brake forth in Cambridge (1629). The University . . . was dissolved, and Scholars dispersed into the Country; three hundred forty-seven of the townsfolk died of the infection But this corruption of the air proved the generation of many Doctors, graduated in a clandestine way without keeping any Acts, to the great disgust of those who had fairly gotten their degrees with public pains and expense. Yea, Dr. Collins, being afterwards to admit an able man Doctor, did (according to the pleasantness of his fancy), distinguish 'inter cathedram pestilentice et cathedram eminentice,' leaving it to his auditors easily to apprehend his meaning therein."*

Not a few times through the centuries Stourbridge fair and Midsummer fair have been prohibited by royal command; and it is recorded how frequently, on account of plague, the University had to suspend its scholastic work for lengthened periods, or migrate into the country. The university was thus almost entirely deserted, all Acts in university and college were suspended, and leave of absence granted to every one without loss of stipend or other privileges, so that, as one of our annalists (Gostlin) says "Nec Academiam in Academia nec Cantabrigiam in Cantabrigia videre licuit aut invenire." For the few whom duty or poverty forced to remain, special regulations were made as follows:

"That yf it please God that any in the College should be visited with the pest, that convenient nurses, physicke, and advice be provided

* Fuller's *History of the University of Cambridge*, 1629.

for them. . . . That the cook and his family be received into the College to provide commons for those few, which should venture to stay ; and that Miles and a Scholar be in the Buttery. That all the Bedmakers, except two, be immediately turned out of the College, and be allowed two shillings apiece every weeke. That a man be hired for 5s. a week for attending continually at the gate to goe of errands into the town.”

In the year 1575 Dr. Pern, Master of Peterhouse and Vice-Chancellor, together with Roger Stegge, Mayor, promulgated a set of rules for the sanitary government of the town, and for the isolation of infected persons, and for the destruction of infected goods. These are far too long for quotation. One extract will suffice :—

“Also that no manner of person inhabiting within any house visited with plague or pestilence, after notice given by the Vice-Chancellor and Mayor, by these words in writing in great letters set upon the uppermost post of his street door, viz : ‘LORD HAVE MERCY UPON US,’ shall go abroad out of that house upon pain for the first default 20s., and for the second default herein, 40s., and for the third default perpetual banishment out of the town.”

It is most interesting to note here that one of the most beautiful architectural features in Cambridge—Clare Bridge—is one of the several beneficial results of plague prevalence, as indicated by the petition of the Masters and Fellows of Clare Hall in the year 1673 to King Charles as follows :—

“ Your petitioners doe humbly begg of your most sacred Matie y^t they may be suffered at their own chardge to land a bridge over ye river, and enjoy a passadge through ye said But-Close into ye feilds, w^{ch} would be little or noe prejudice to them, and of great benefitt to your petitioners, especially in tymes of infection, having noe passadge into ye feilds but through ye Chappell yard of your said Kings Colledge, ye gates whereof are shutt up in those tymes of danger.”

Further wishing to obtain for the same purpose land belonging to King’s College on the west bank of the river, they offered as a further inducement to King’s, that they would set back their proposed new building, which was to be exactly opposite the building of King’s Hall, some 70 ft., whereby their buildings would get more light and air, and “ye annoyance of ye windes gathering between ye Chappell and our College” would be removed.

“In the parish books are charges for pitch and tar to burn in the churches.”*

From all the above, it would appear that segregation and disinfection of a sort were practised then as now, but not in the same measure of

* *Bowtell MS.*

efficiency and success as in our days. Neither was the community altogether ignorant or careless of the value of cleanliness, fresh air, and pure food and water; but they had not a complete knowledge, nor the means of carrying into effect the little knowledge that they did possess. Sanitary knowledge and the ability to use it have come only within the Victorian era, and may be assumed to start with Chadwick's Health of Towns Commission. It is likely enough that the sanitary condition of Cambridge in very early times, when the monks of Ely had a grant of fishery here, was much better than it subsequently became; there were then no sewers to pollute the river; little slop-water to pollute the soil; and the inhabitants too few to pollute the air.

The first incentive to pollute the river was the construction by Henry III. (1266) of a ditch first called the “King's Ditch,” but subsequently the “Black Ditch”; it encircled that part of the ancient town not bounded by the river, and commencing above “Small Bridge,” near what is now “Silver Street,” and traversed Mill-lane, then past Pembroke College, across the old Botanic Garden (now the site of the New Museums), and Tibbs Row, to Christ's College, past Sidney Sussex College, down Sidney Street (then Conduit Street), to the Great Bridge opposite Magdalene College; it is supposed it was for a *military* fosse, for it would appear that on account of the troubles of the times the King intended to have built also a rampart along the line of the ditch, but time and opportunity failed him.

In the following year, 1267, probably at the time of his visit, the King granted Cambridge its second important Charter, and among its provisions is one to the following effect:—“That the town should be cleansed from dirt and filth, and kept clean; and that the watercourse should be opened and kept open as of old it was used, so that filth might run off. That all obstacles which prevented the passage should be removed, and that the great ditch of the town should be cleansed, for doing whereof two of the more lawful burgesses in every street, were to be sworn before the Mayor and Bailiffs (the Chancellor and Masters being asked to be present if they would).” A relic of this duty of the burgesses remained till quite recently in the obligation of each householder to clean snow from the pavement in front of his dwelling. The foul condition of the streets in King Henry's charter was in a large measure due to the practice of housing cattle, swine, and horses within the town of a night, and commoning them by day on the town pastures; for at this time the place was still an agricultural unit of the county, and had not yet become a “township.” The right of depasturage of cattle and horses on the commons still persists.

In Cooper's *Annals*, volume 1, pages 133 and 134, we find the following:—

“The thirteenth chapter in old records frequently termed the Statute of Cambridge was in all probability suggested by the filthy state in which the town appears to have been about this period, when the King held his Parliament here in 1388.”

It is recited in the Statute: “That so much dung and filth of the garbage . . . be cast and put in ditches, rivers, and other waters, etc. . . . that the air there is greatly corrupt and infect, and many maladies and other intolerable diseases do daily happen. . . .”

Excremental nuisances were not much better in and about the colleges. From *Lamb's Corpus Documents*, page 156, it would appear:

“That the seyde College (Trinitie) doth commonly use to laye their mucke and meanor on the back apou the forseyd common grene when they will suffer no man elles to do the like, and have builded a common Jakes upon the same.”

From *Grace Book B.*, we find the following item:—

“Pro mundacione bocardi ijs viijd.” (2s. 8d.)

N.B.—Bocardi were the “places of Easment.”

EXCREMENT DISPOSAL.—In Cooper's *Annals*, vol. 11, pages 332, 333, 334, it is recorded:—

“On the 30th Sept., 1575, a composition was made between the University and town for cleansing and lighting the streets, preventing the various nuisances, and diminishing the danger of pestilence. ‘Forasmuch as the ordinance and provision made in the composition between the university and the town of Cambridge, for correction of common nuisances, taketh no good effect, and that divers evil disposed persons inhabiting within this town do suffer their cannels to lye uncleansed, and also lay their muck, mire, dung, and filth, in the high streets, under colledge walls, and other lanes, within the town, to the great noyance of all students, people of the town, and strangers. Also it is agreed by the said Mayor, bailiffs, and burgesses, that the void ground by Newnham Mills, the ground at the south end of Spital House, the fair yard, the hill in the end of Jesus Lane, the valley beyond the Castle Hill, and the Padding Pits, shall be the common dung hills and places, to lay the muck, mire, and filth, within the town as is aforesaid.’”

For the double purpose of cleansing the Black Ditch, otherwise King's Ditch, and bringing pure water to the town, it occurred to Dr. Pern, Master of Peterhouse and Dean of Ely, in 1574, to bring water in open conduit from the “Nine Wells,” a chalk spring at Great Shelford, to Cambridge. No action, however, followed his suggestion till the idea was revived by the first master of Sidney Sussex College, in 1610, and carried into effect at the joint expense of the town and university, according to a scheme devised by Edward Wright, M.A., of Gonville and Caius College.

Before making a natural transition to the subject of water supply let us glance for a few moments on further developments of the sewage and excremental disposal. As the town grew in population, and built-on area, the difficulties increased, and more or less imperfect schemes were adopted in consequence of continued friction between the town and university on the question of drainage. An Act of Parliament was obtained, called the "Cambridge Improvement Act," for the better drainage etc. of the town, but notwithstanding the attitude assumed by the university on the question, many of the riparian colleges continued to have "dropping places," or large sewers of their own communicating direct with the river. The Commissioners created by the Act certainly redrained the town, but it turned out unsatisfactory, and there was no method of scavenging for household refuse even at the time of my own appointment here. We now have a complete new system of sewerage, a pumping station with rising main to convey the sewage on to land and contact-beds, a system of scavenging, a "destructor" for burning all the waste garbage produced; thus the river has been relieved of a function which it should never have had.

There is little to say about the water supply of bygone times; I have already adverted to the scheme of bringing water from the "Nine Wells;" it now goes by the name of Hobson's Stream and Conduit, and supplies the present fountain on the Market Hill.

The Grey Friars, now Sidney Sussex College, brought water from a gravel bed on high ground at Madingley; this water became intercepted by Trinity college, and the fountain in the Great Court is still supplied from that source. For the rest, the colleges and town depended on surface wells; and a glance at Loggan's views, and others of the ancient town, show pumps in college quadrangles, and in the public streets, mostly against the churchyard walls.

From *Cambridge Portfolio*, 318:—

"Henry VI. in his will directs that in the middle of the great quadrant of Kings College 'shall be a conduit goodly devised for the ease of the said college,' and for this purpose gave license to the Convent of Barnwell to grant a piece of land called 'Holwelle,' situate at Madingley, near the Grange belonging to the convent of Morrbans, for the subterranean aqueduct to be made thence to the college.

"There was also the King's Hall Conduit, from which Henry VI. had before 1450 granted to that college 'a voide place of ground' being near it.

"The conduit now standing in the great court of Trinity College in all probability occupies the place of one which had belonged to King's Hall. It was apparently built about the reign of James I."

So it would appear that this enterprising college, which had already absorbed Michael House, belonging to that society, and Physicke Hostel, belonging to Gonville Hall, got its water from the Grey Friars, and its fountain from King's Hall. Now King's College has erected in their new court a new fountain, but the water is from the same source as that for the vulgar use of all who choose to buy it; this vulgar water supply is one of the best things that exists now, and did not so then; it is nearly the same as the chalk water from the "Nine Wells," but the company mix with it a certain proportion of water from the greensand. Nearly every household is now supplied with this excellent water, which is delivered on the constant system and at high pressure. It is not, however, many years ago that a group of little streets near the conduit head derived their water from Hobson's Stream, but the ambitious little village of Great Shelford desired to become modern in the sanitary sense, and began to cast their slop water, etc., into a tributary of the Hobson's Stream.

Water now-a-days is used for more purposes than drinking; our wise ancestors however valued it too much to permit of its serving any other purpose, and on the 8th of May, 1571, the following edict was made, as quoted in Cooper's *Annals*, (vol. 2, p. 277):—
 "Dr. Whitgift, Vice-Chancellor, and the heads of colleges, for many and weighty reasons decreed, that if any schollars should go into any river, pool, or other water in the county of Cambridge, by day or by night to swim or wash, he should, if under the degree of Bachelor of Arts, for the first offence be sharply and severely whipped publicly in the common hall of the college in which he dwelt, in the presence of all the fellows, schollars, and others dwelling in the college, and on the next day should be again openly whipped in the Public School where he was or ought to be an auditor, before all the auditors, by one of the proctors or some other assigned by the Vice-Chancellor, and for the second offence every such delinquent should be expelled his college and the university for ever. But if he should be a Bachelor of Arts, then for the first offence he should be put in the stocks for a whole day in the common hall of his college, and should before he was liberated pay 10s. towards the commons of the college, and for the second offence should be expelled his college and the university; and if he should be a Master of Arts, etc., he should be severely punished at the judgment and discretion of the Master of his college, etc. Dr. Peacock characterizes this as a 'decree of savage and indecent severity.' "

Now we swim in our river and drink from its head waters.

My short sanitary back-look would be incomplete were I not to give a glance, and time indicates it must be but a glance and nothing more, at the relation of people to air-space. The ancient guild merchants

did undesigned sanitary service by their active opposition in their commercial interest to overcrowding of the town.

"In the days of Elizabeth and her two next successors," says Maitland, "there was a scare at Cambridge, as elsewhere, about overcrowding."

"The poore persons dwelling in cottages and divided tenements are suffered to enjoye the bennifitt of the commons, and when the Magistrats have offered to keepe them off, by force they have putt on their cattell, and this liberty of commonage and tollerance of the Magistrate hath much increased of poore amongst us." Et. Seq.

And then a sort of Aliens Act was devised to exclude them.

Then the University began to complain of the townsfolk assuming to themselves rights, which they asserted King John's Charter never intended:—

"Seeing this colour of being lords of the soyle encourageth them to build and pester every lane and corner of the towne with unholosome and base cottages, which receive none but ydle and poore distressed people, that live and pray upon the University."

On the other hand, the intrusion, as I have ventured to call it, of the University and Colleges into the town has led to large displacement of these same "unholosome and base cottages." Witness the expansions of King's and Trinity.

As a sequence of it all, there is now scarcely a town in England that has so much open space, private as well as public, as has Cambridge.

A few words in conclusion on the condition of life in this regard in the Colleges. Some misconception exists in the minds of many visitors to our Colleges with regard to the small cubic capacity of the sleeping apartments of the undergraduates in the more ancient parts of the Colleges. The late Prof. Willis, of Caius, worked out the real meaning of the present condition of things, and found by examination of the College records that several students occupied one large room, wherein they lived and slept, and had for seclusion as private studies small partitioned-off spaces, somewhat like cupboards, in the corners of the room, each having a window. These exist now, but in accord with the present practice of students not living in groups, these small spaces are made use of for the combined purpose of sleeping and dressing; therefore it is unfair to criticize these partitioned-off spaces as if they were originally designed as sleeping apartments.

Pressure of time has prevented me from making use of all the interesting historical material concerning the Town and University. I have, therefore, attempted a mere sketch, as concisely as possible, of the sanitary conditions of life here in the past and the present, and hope it has not been altogether uninteresting to you.

